


American Fruit Grower

WESTERN EDITION
NOVEMBER • 1958



Bulk Handling Cuts
Pear Harvest Costs

Steel Fingers Speed
Cherry Packing

Fruit Areas of America:
OREGON

Clint Carlough's Formula for Success with Apples

"FIRESTONE FREE LOANERS KEEP MY TRACTOR ROLLING WHEN EVERY MINUTE COUNTS!"

says Harry Andreesser, Parkersburg, Iowa.



Firestone Dealer W. W. (Smitty) Smith (right) and Horace Sheridan (center) mount a pair of "free loaners" in minutes right in the field for Harry Andreesser.

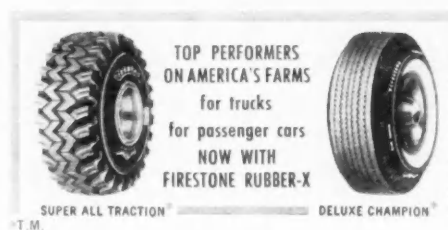
Butler County, Iowa, farmers—like farmers everywhere in the country—can't afford to have tractors stand idle while worn tires are retreaded or repaired. Harry Andreesser keeps his tractor working without tire delays by using new Firestone *Free Loaner* tractor tires.

"W. W. (Smitty) Smith, my Firestone Dealer in Cedar Falls, lets me use brand-new Firestones for nothing when he retreads or fixes my old tires," Mr. Andreesser says. "He puts them on right in the field to keep my tractor rolling during the busy days when every minute counts. That's the kind of service I really appreciate."

Firestone's *Free Loaner* Service is just one of many reasons farmers look to Firestone for farm tires. Another reason is that Firestone Rubber-X is especially compounded for farming conditions to add new strength and extra wear to farm tires.

Visit your Firestone Dealer or Store and find out how Firestone Rubber-X and exclusive S F (Shock-Fortified) cord help make Firestone farm tires last extra long. Ask about the new All Traction Champion® tractor tire. And check on Firestone's *Free Loaner* Service.

Enjoy the Voice of Firestone on ABC television every Monday evening.



ALWAYS A YEAR TO PAY
Firestone
 BETTER RUBBER FROM START TO FINISH

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APPLE GROWERS:

Now kill tree-destroying orchard mice with ORTHO® Endrin



Kills both the pine mouse and the meadow mouse.

The pine mouse has a small body, small tail, Roman nose, sunken eyes and brown fur. He burrows underground and girdles the roots.



The meadow mouse has a large body, long tail, prominent eyes and dark grayish fur. He girdles the tree at ground level.

**Ground spraying with ORTHO® Endrin is the most effective —
most economical method for control of orchard mice.**

Up until now, the control of orchard mice has been an expensive, time-consuming task. Previously used control measures such as hand-baiting, and the use of wire mesh screen, required costly hard labor and were not always effective. Now, ground spray with ORTHO Endrin gives you a sure, efficient method of control.

For complete information on the control of orchard mice, call your nearest ORTHO Fieldman.



Helping the World Grow Better

California Spray-Chemical Corp.

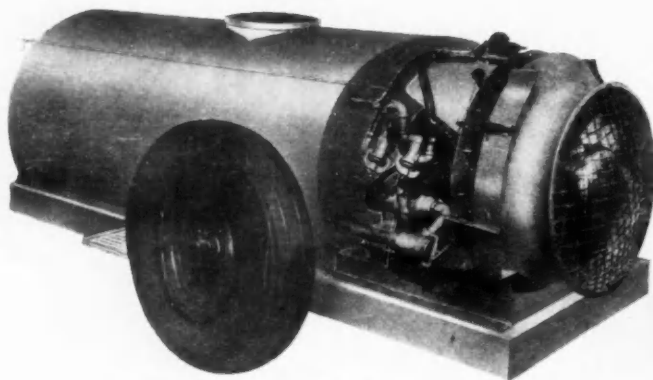
A subsidiary of California Chemical Co.

Richmond, Calif.; Washington, D. C.; Portland, Ore.; Sacramento, San Jose, Fresno, Whittier, Calif.; Phoenix, Ariz.; Salt Lake City, Utah; Maryland Heights, Mo.; Shreveport, La.; Memphis, Tenn.; Maumee, Ohio; Haddonfield, N. J.; Springfield, Mass.; Medina, N. Y.; Columbia, S. C.; Orlando, Fla.

ON ALL CHEMICALS, READ DIRECTIONS AND CAUTIONS BEFORE USE

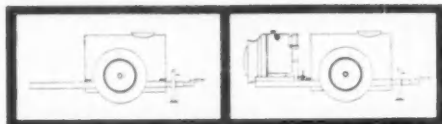
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You can pay and not get better



A Besler Power Package is a *complete* sprayer, less tank and trailer. Easily attached in *less than a day* to your tank and trailer, to one you make, or to a good used one you can buy.

Supplying a little of your own time will save you up to \$2,000 on the manufacturing cost of a complete new sprayer.



Installation and manufacturing plans furnished with each Power Package.

The Besler Power Package consists of equipment proven for a dozen years, on tens of thousands of acres.

- Axial-flow fan. Proven most efficient. Saves gas, oil, wear.
- Complete with pump. 20 to 50 GPM @ 120 PSI.
- Heavy duty, industrial engine.
- Replaceable, solid aluminum, cast fan blades.
- Bes-Val ratchet valves for quick shut-off, durability.
- Special Besler strainers.
- Agitator drive. Chain and sprockets.
- Special volutes and adapters available.

Besler Power Package

with **35"** axial-flow fan. Similar to that of a \$4,225 sprayer. **\$2,395***

with **30"** axial-flow fan. Similar to that of a \$3,625 sprayer. **\$1,795***

with **24"** axial-flow fan. Similar to that of a \$2,395 sprayer. **\$1,395***

with **24"** axial-flow fan. Similar to that of a \$2,000 sprayer. **\$1,095***

*Prices subject to change without notice.

New tanks and trailer will be available through your Besler dealer . . . either from our factory, or regionally manufactured to our specifications.



Dorward deep well
Pumps



Row-crop Sprayers



Dorward
centrifugal Pumps



Dorward Water
Systems



Bes-Kil

\$2,000 more spraying performance!

You may save
enough to get
a new pick-up.

Here's how others
have come out
ahead:



"Any way you look at it—it's \$2,000.00 saved—and I put my unit together in about 8 hours. It's equipment that has proven itself for years as the Bes-Spray air carrier sprayer. I'VE HAD NO PROBLEMS WITH IT."

Bill Winkler,
Apple Grower



"Bugs are practically non-existent in my orchards since I started using my Power Package Sprayer. It not only saved me \$2000.00 in sprayer cost, but also helped me get premium prices for top grade fruit."

Annie White, Michigan
Traverse City.



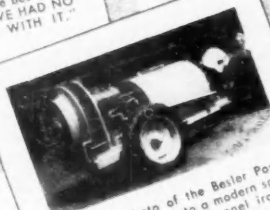
Israel declares war, on insects
with a Besler Power Package.



I am enclosing several pictures of a sprayer which was made with a Besler Power-Pack. I sold this unit to Mr. E. C. Black and he had a local welder do the work. Mr. Black is well pleased with this unit and thinks he has a machine that costs about \$2150.00, which will do the same job as the sprayers some of his neighbors have paid over \$4000.00 for. The tank is also a new tank.

Mr. Black was so well pleased that he had these snap-shots made especially to send them to you.

Yours truly,
Philip W. Clark, Jr.,
Taylor Chemical Co. of
York, South Carolina



Here is a photo of the Besler Power Package we built into a modern speed sprayer with a little channel iron, a tank, and an old automotive truck axle.

This machine is doing our job as thoroughly as any major brand factory unit would at a total cost to us of just about one-half the price. Congratulations to you on this fine unit you have made available to us orchardists.

Respectfully,
Al Cox
Rte. 1, Box 240
Aptos, Calif.



Dear Sir:
Thought you people would like a copy of the spray rig that Charles Cox and myself made here at my ranch. The rig works just perfect and does everything a wet rig should do.

Charles is really a swell guy to do business with.
Thanks so much,
William R. Ruge
Route 2, Box 488
Morgan Hill, California



"You may be interested in the enclosed photograph. This sprayer, incorporating the BESLER POWER PACKAGE, is now being manufactured in quantity at our Hastings workshop. The sprayer is proving a particularly popular outfit and in addition to the wooden tank, a 400 gallon steel tank is also available."

—New Zealand

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for
Free
literature



Bes-Blo



Bes-Spray, Complete Air-Blast
Sprayer Deluxe Model

BESLER CORPORATION

4053 Harlan St. Emeryville Station, Oakland 8, Calif.

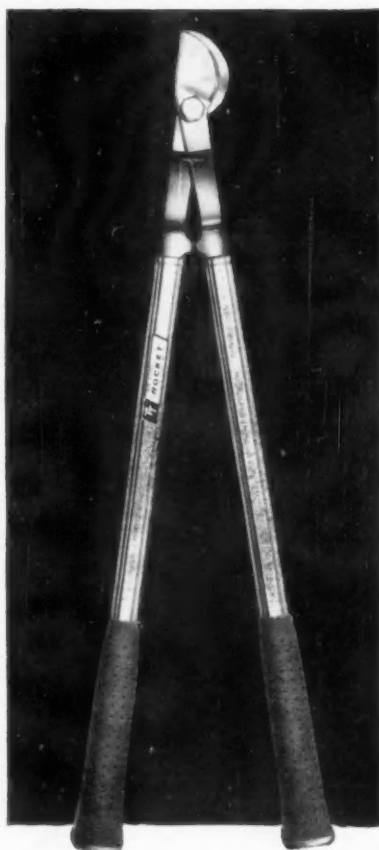
Gentlemen: Please send free literature on the Power Package.

Name

Address

Grower.....Student.....Other.....

Type of Crop.....Acreage.....



Rocket Loppers Last Longer

Extra strong, yet lightweight, perfectly balanced. Cut costs because they won't bend or break in normal use. You'll speed pruning, yet be less tired using ROCKET loppers. Boron-alloy tubular steel handles soak up shock. Comfortable cushion grips prevent blisters, won't slip wet or dry or in gloved hands.

See all three models: A105 (above) for heavy duty; A103, home and garden model; A101, vineyards and light work. True Temper, 1623 Euclid Avenue, Cleveland 15, Ohio.



You can feel
the power and
balance in
Rocket loppers

TRUE TEMPER®
THE RIGHT TOOL FOR THE RIGHT JOB



American Fruit Grower

Cover photograph showing clusters of pears on tree is by J. Horace McFarland Company. Pear production for 1958 was estimated by USDA on October 1 at 29,061,000 bushels, compared with 31,676,000 bushels for 1957.

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AMERICAN FRUIT GROWER

LETTERS TO THE EDITOR

Juicy Boy

Dear Editor:

Your cover photograph on the September AMERICAN FRUIT GROWER looks so much like my little boy that I thought at first glance it was my son, especially since we live on an apple farm.

I would like to know if you could give me Juicy Boy's real name and address. I would like to send him a picture of Scotty Samor.

E. Rochester, Ohio Mrs. Daniel R. Samor
Samor Apple Farm

Juicy Boy's address is given in letter which follows.—Ed

Dear Editor:

Your readers may be interested to know more about the little boy whose captivating picture appears on the front cover of September AMERICAN FRUIT GROWER.

Billy Anderson of Rt. 2, Moravian Falls, N. C., is not greatly concerned over the fact that he is the celebrated good-will ambassador and personal emissary of apple growers from coast to coast. His head has not been turned by having his picture displayed in doctors' and dentists' offices all over the country, in National Apple Institute advertising, magazines, and brochures everywhere.

Billy's classmates in the 7th grade at Moravian Falls school do not recognize him as "Juicy Boy," a cover boy, or a celebrity of any sort. Billy would be the last to mention any degree of fame he has achieved by the widespread use of his picture.

The picture was made at an apple festival held at Pores Knob, N. C., in 1951. At that time Billy's father was an orchard worker and it was only natural that the boys should ride along on the old, weatherbeaten truck in which his father carried apples to the festival. Photographer Max Tharpe happened along at just the right moment to catch Billy in his lenses with such a delightful expression of joyful appreciation of a fine, juicy apple that it will likely never be duplicated.

Wilkesboro, N. C. James Z. Daniel
Brushy Mountain Fruit Growers Assn.

Grape Cultivator

Dear Editor:

In a recent issue you had an article about a cultivator for grapes (June, 1958) which I read with interest. About six years ago I bought a 13-tooth harrow from John Deere and it has done the job of cultivating grapes for me since.

To prevent the front corner from catching in the vines, I attached a long piece of angle iron to the front axle, bent it to clear the rear wheels, and couple just outside of the front corner of the cultivator. This pushes the vines clear of the implement. The harrow has a hollow frame so that a piece of 1 1/4 x 8 inch welded on the rear can be placed in the hollow ends of the frame to support the rear of the grape shield.

Farmington, Mo. E. Longenecker

Located on well-traveled highway? Then you may want to attract the motorist with a good-looking display of fruits. Working drawings for an attractive, easy-to-build roadside stand are available for \$2.00 from AMERICAN FRUIT GROWER, Willoughby, Ohio.

NOVEMBER, 1958

If Railroads did not exist—the U.S. would have to invent them!

*From a recent editorial in the
Canton (Ohio) REPOSITORY*

SUPPOSE that everybody in the United States were to learn for the first time about a marvelous method of transportation called a railroad.

The idea would be sensational.

High-speed tractors running on steel rails laid on privately-owned rights-of-way, with minimum curves and grades, would be capable of pulling long processions of trailers full of merchandise. Imagine!

Trains of trailers would be kept rolling day in and day out until they reached their destinations. They would be shuttled into and out of vast marshaling yards, where the trailers would be grouped in the right combinations. Of all things!

Everything connected with the procedure, moreover, would be subject to taxation. It would be expected to pay for itself. What a switch that would be!

The high-speed tractors on their twin ribbons of steel could even haul human beings, in addition to freight. If necessary, the human beings could be bedded down and hauled from one place to another in special cars with comfortable seats and all the comforts of home.

It would be an absolutely revolutionary idea—railroading. Provided it had just been invented, that is.

All the progressives and the folks who try to lend a helping hand to get new ideas off the ground would be 100 per cent for it.

All the politicians and administrators would be 100 per cent for it.

As for the militarists and hard-headed security planners, they would be 150 per cent for it, because it would represent a mode of transportation more dependable for long-haul movement of heavy cargo than anything ever dreamed of heretofore.

The whole country would welcome the useful stranger with open arms and be alert for opportunities to give it a boost.

Cities and counties would tumble over one another to build things for it and to make free land available for its terminals.

Politicians would get into higher mathematics to subsidize it with financial gimmicks.

Nothing would be too good for the railroads if the idea of transporting things on steel rails were brand new. . . .

All railroads want is a chance to be as good as they know how to be if they are unshackled—set free from regulations that were designed to curb them when they were new and threatening to abuse a monopoly in high-speed, straight-line transportation.

Railroads should be born again.

That is what would have to happen if they went out of existence.

If they did not exist, the United States would have to invent them. . . .

Association of American Railroads

WASHINGTON, D. C.

NOVEMBER

BUY NOW!



**SAVE
\$3.50**
ON EACH
54-GAL. DRUM

**SAVE
\$2.10**
ON EACH
30-GAL. DRUM



IT PAYS TO TAKE EARLY DELIVERY!

By ordering right now you get CRAG Glyodin, the top-quality fungicide for apples, at maximum savings! Orders delivered during November save you \$3.50 on each 54-gallon drum . . . \$2.10 on each 30-gallon drum. Order enough Glyodin for early sprays and cover sprays . . . enough for the entire 1959 spray season! Glyodin stores well through cold weather, so your savings will be protected.

DELIVERY MONTH	SAVE per 54-gal. drum	SAVE per 30-gal. drum
November	\$3.50	\$2.10
December	3.00	1.80
January 1959	2.50	1.50
February 1959	2.00	1.20

Glyodin is an outstanding fungicide for apples and cherries, suppresses mites, and teams up with many insecticides for better insect control. It is its own spreader-sticker! You get back-action plus protection by using Glyodin with mercury . . . highly efficient mildew control from Glyodin with sulfur or "Karathane" . . . excellent control of rust and rots from Glyodin with ferbam.

See your CRAG Glyodin Supplier Today!

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Carlough uses his own trucks for local deliveries.

FORMULA FOR *Success*..

'Don't cut corners' is the sage advice of Clint Carlough whose apple production is nearing 150,000 bushels annually

By **NORMAN F. CHILDERS**
Rutgers University

CLINTON D. CARLOUGH, of Ramsey, is one of New Jersey's largest apple growers.

Clint's father, David J. Carlough, who is still quite active at 73, initiated the present fruit growing business and over the years the two have expanded the enterprise until now they operate orchard blocks in Bergen County, New Jersey, and across the state line in Rockland County, New York. There are some 400 acres of young and old trees. Production is approaching 150,000 bushels annually.

Present acreage is comprised of about 30% Rome, 25% McIntosh, 15% Delicious, 15% Cortland, and 10% Stayman. The Delicious crop has been getting bigger every year. The trees are about 40 years old, some bearing as high as 48 bushels a tree last year.

The Carloughs are well pleased with Jerseyred. Nine-year-old trees picked as high as 25 bushels per tree last fall. Under their climatic and soil conditions no other variety compares with it in production, and almost every apple is fancy. Quality and storage are good. They have 1500 trees of Jerseyred.

Trees in the Carlough orchards are planted 18x24 feet for Delicious and Jerseyred because they bear earlier. A lot of apples can be picked

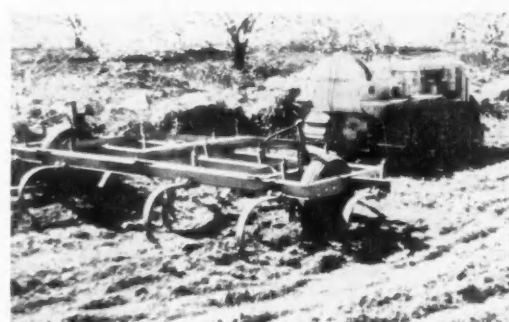
from these trees before they are thinned to 24 x 36 feet.

The Carloughs have used a lot of chemical thinning, but they still believe there is much to learn in its use. Clint has used the amid form the most, applying it on the low concentration side in the hope that he can get enough of the apples off to reduce hand thinning.

Amid did a poor job on Stayman in 1957, leaving two to three times



Large wooded area on Carlough estate being cleared for the planting of new apple orchards.



Clint uses this equipment every three to four years in mature apple blocks to loosen soil packed down by heavy machinery.

as many apples as the trees normally carry. Unfortunately, he was not able to get around to hand thinning the Stayman but he believes now that it was best he didn't, since the total yield was 1800 bushels, none under 2½ inches in diameter. Many of these went for export.

Cost of spraying has been rising steadily in recent years, due to use of more expensive pesticides. How-

ever, Clint believes these materials are well worth the money, since he has been getting better yields and finish every year. In 1957 his spray bill was about double the 1951 bill; but a 10% increase in size of younger trees during this period must be considered, also that there is somewhat more acreage in production.

He is getting excellent finish. His
(Continued on page 29)

THE FRUIT AREAS OF AMERICA

OREGON

By **QUENTIN B. ZIELINSKI**

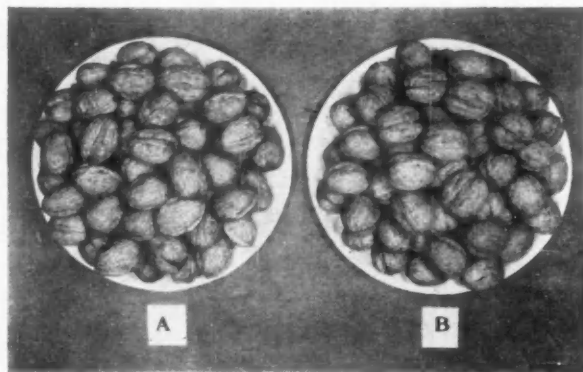
Oregon State College

THE first cultivated fruits in the Northwest appear to have been introduced in 1825 by employees of the Hudson Bay Company near Vancouver, Wash. These first fruits consisted of seedling plants of apples, pears, peaches, and grapes. Ten years later Captain Nathaniel Wyeth mentions in his diary of having grafted fruit trees on his place, now Sauvies Island, near Portland, Ore.

The first real record of the introduction of grafted fruit trees into Oregon begins in 1847 when Henderson Lewelling arrived overland from Salem, Iowa, with an ox-team



An important pear variety grown in Oregon is the Bosc.



Franquette (A) and Adams (B) English-type walnuts. Oregon produces annually about 15 million pounds of walnuts.

This tour of Oregon is the sixteenth in our series of articles on important fruit areas. Previous visits have taken us to New Jersey; East of the Cascades in Washington; California's Central Valley; the Ozark region of Missouri; Arkansas, and Oklahoma; New England; the Lower Rio Grande Valley of Texas; British Columbia's Okanagan Valley; Western New York; Georgia; Appalachia; Idaho; South Carolina; Michigan; Southern California; and Nova Scotia's Annapolis Valley.—Ed.

and about 700 grafted trees and shrubs. William Meek, son-in-law of Lewelling, also brought some trees and seeds through safely and in 1848 the Lewelling and Meek Nursery was started near Milwaukie, Ore. The first recorded shipment of grafted Oregon apples to California took place in 1853.

In 1858 Seth Lewelling, brother of Henderson, set out 5 acres of prunes near Milwaukie. This appears to have been Oregon's first prune orchard.

Other prominent early leaders of the fruit industry in Oregon were J. H. Lambert, J. R. Caldwell, C. E. Hoskins, Col. H. E. Rosch, Prof. E. R. Lake, A. B. Cordley, Ferd

Groner, Thomas Prince, and Charles Trunk.

The culture of tree fruit, nut, and berry crops is an important aspect of the agriculture of this state, having a value exceeding \$100 million when processed or packed in Oregon. The agricultural areas of Oregon are greatly diversified due to climatic and topographical differences. Oregon has a great variety of soil types; for example, the Willamette Valley has 157 named soil types. Similarly great differences exist in rainfall, length of growing season, and temperature.

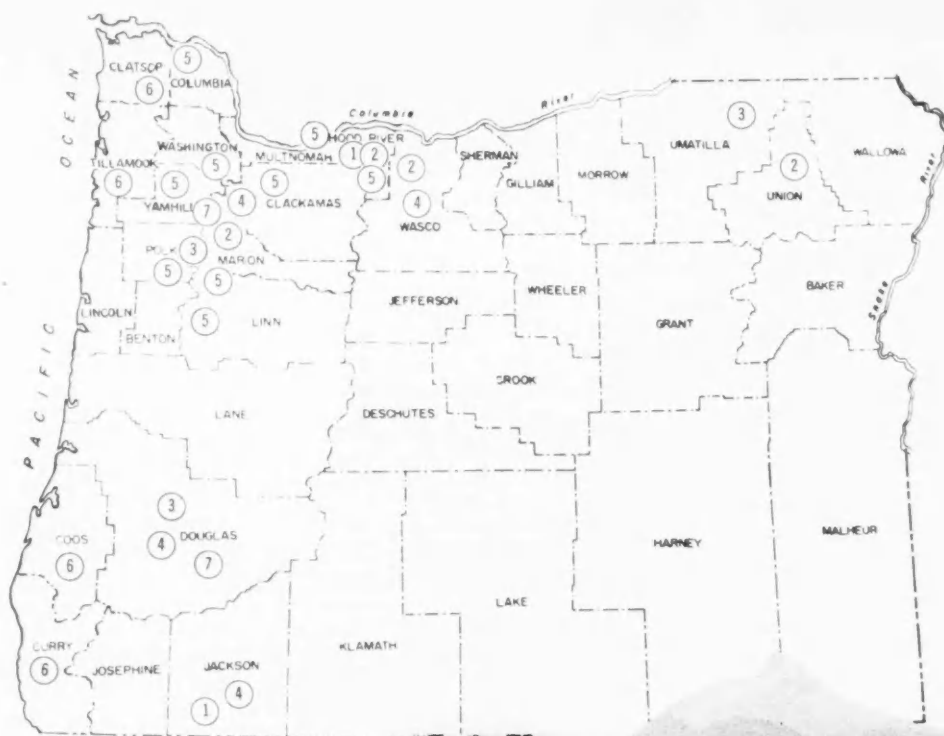
Apples and Pears. Oregon's commercial apple and pear production is centered in the Hood River Valley of

Hood River County and the Rogue River Valley of Jackson County. During the 1955-56 season 1456 carloads of apples and 1437 carloads of pears were shipped from the Hood River district, and 4174 cars of pears and 26 cars of apples from the Medford district (Rogue River Valley). To a large extent, shipping point movement is out of the state.

Major commercial apple varieties are Delicious (Oregon ranks third in U. S. production of this variety), Newtown, Jonathan, Golden Delicious, and Rome Beauty. In most instances the new red-colored strains are being widely planted in new orchards. Oregon now ranks 10th in apple production.

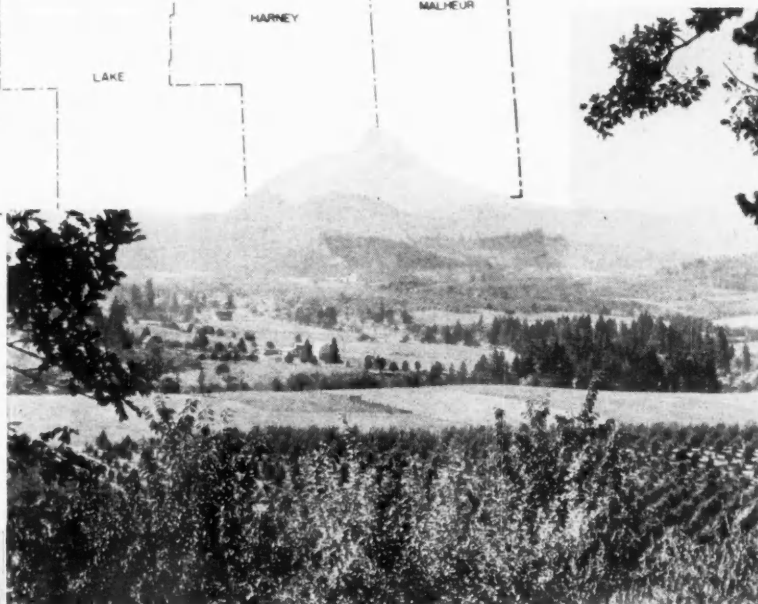
The chief pear varieties are Bartlett (mostly canned in Oregon), Anjou, Bosc, Comice, and Packhams Triumph. The large winter varieties, especially Comice, are gift box favorites.

Oregon ranks as the leading win-

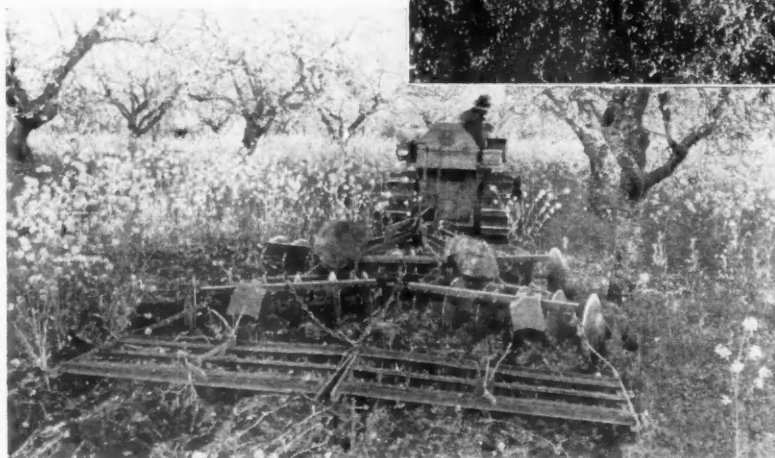


Map shows areas in Oregon where following fruits are grown:

- 1—Apples and pears.
- 2—Cherries.
- 3—Prunes.
- 4—Peaches.
- 5—Strawberries.
- 6—Cranberries.
- 7—Nuts.



Orchard scene in Oregon's Hood River Valley.



Disking cover crop in Oregon prune orchard. Oregon ranks second in prune production in U.S.

ter pear producing state in the nation and is second in the production of Bartlett. Six or seven other varieties of both apples and pears are grown on a lesser scale.

Pear and apple growers have effective organizations in both the Rogue River and Hood River valleys. The Oregon-Washington-California Pear Bureau, for the promo-

tion and education to aid sales of winter pears, has headquarters in Portland. R. A. Patterson is manager of the bureau. One of the many prominent apple packing and marketing organizations is the Hood River Apple Growers Association, of which J. E. Klahre is manager.

Many prominent commercial packing companies are located in Oregon and are equipped with the most modern facilities for fruit storage and handling. The Medford pear interests support a vigorous program in the Medford Shippers Association and the Fruit Growers' League. Similarly, Hood River Valley has a highly effective traffic association.

One of the leading state-wide organizations is the Oregon State

(Continued on page 24)



- New Minute Maid Orange Juice Makes Debut
- Ohio Apple Festival Attracts Thousands

New Orange Juice Hits Market

FLORIDA—Last month Minute Maid Corp. began replacing its familiar frozen orange concentrate with a "revolutionary new orange juice."

Howard G. Dick, director of advertising and marketing of the company which last year moved from New York to Florida, said that eight years of research and an investment of \$14 million had resulted in a "concentrated orange juice containing all the properties of the freshly squeezed orange."

He said the new product, which has already appeared in several areas, would be in national distribution, replacing the traditional Minute Maid product, by 1960.

Four-Day Apple Festival

OHIO—The 18th annual Jackson County Apple Festival held in September proved to be one of the greatest apple promotions of the year. This festival, which usually attracts over 100,000 visitors, is the only apple festival in the state of Ohio and is among the largest in the Midwest.

On the opening night, Miss Janet Corvin of Oak Hill was crowned Jackson County Apple Festival Queen by Bill Zaboly, cartoonist for the Popeye comic strip.

One of the outstanding exhibits was "A Resume of a Lifetime in the Apple Industry" put on by Food Machinery Corporation. This display, which included thousands of dollars worth of orchard equipment such as a sprayer, duster, grader, packager, and bagger, was an action type and showed methods used in preparing apples for the consumer as well as cost of production.—Bernard Bushell.

Inventor of Black Walnut Cracker Dies

VIRGINIA—The recent death of Benjamin Harrison Thompson, 68, of Harrisburg, Va., presents a great loss to the fruit, vegetable, and nut growers of this area. Mr. Thompson, inventor and manufacturer of the Thompson black walnut nut cracker and huller (See AFG, Oct. 57, p. 10), and owner of the Thompson geological museum in West Rockingham, was engaged in farming for many years prior to going into the manufacturing business.

Chautauqua Joins Co-op

NEW YORK—In a meeting held at Fredonia, the capitol city of the Chautauqua County grape belt, on September 16, the board of directors of the recently organized Western New York Grape Growers Association voted to affiliate with the New York Grape Growers Co-operative.

The merger brings together in a single unit the growers of the Lake Erie district, largest producer of Concord grapes in the eastern United States, and the famous wine district of the Finger Lakes. Through the consolidation Howard Green of Portland, N.Y., president of the affiliating association, said the growers hope to establish prices that will compensate for the current high cost of producing grapes, to obtain uniform

contracts, and to promote the welfare of the grape industry.

The Farm Bureau, the New York Canning Crop Growers Co-operative, and the Tri-County Co-op, an Ohio organization, also were represented at the Fredonia conference.—Bill Stemple, Sec'y, N.Y. CCBG, Batavia.

Citrus Growers Organize

TEXAS—At one of the largest meetings ever held, 250 growers representing some 22,000 citrus acres of the lower Rio Grande Valley gathered at Texas A and I College to organize a Texas Citrus Mutual.

Stanley Crockett was named chairman of a steering committee of 12 which will study the highly successful Florida Citrus Mutual and other such groups.

At the meeting James C. Morton, representing the Waverly Growers of Florida,

pointed out that an organization is necessary if Valley citrus cultivation is to grow into a major industry in Texas.

Peach Council Balks USDA Proposal

GEORGIA—The board of directors of Georgia Peach Council has adopted a resolution to block USDA's proposed revision of peach grading which is scheduled to become effective on January 1. Ray Livingston, secretary of the council, stated that the

DEATH CLAIMS PEACH BREEDER

John W. Pearson, 76, developer of the Pearson Hiley peach and prominent peach grower in the Fort Valley, Ga., area for 57 years, succumbed to a short illness early in September. Pearson was an active member of the Committee of Peach Growers Marketing Agreement.

board's action is based upon a consensus that the standards set up by the Georgia Peach Industry Committee are satisfactory for that state.

The council board will meet on January 19 in Griffin in conjunction with the peach growers' organization.—Pauline T. Stephens.

FRUIT PEST HANDBOOK

(SIXTY-EIGHTH OF A SERIES)

STINK BUGS

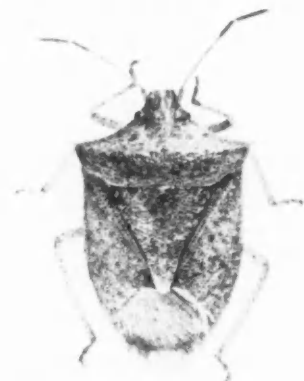
SEVERAL species of stink bugs attack the fruit of apple, apricot, cherry, fig, grape, peach, pear, plum, and brambles. These insects have a preference for feeding on fruits which are very small or which are approaching maturity. Peach and pear are particularly susceptible to severe injury. Peach fruits attacked when small may either drop prematurely or remain on the tree and develop typical deformities. Sunk-in depressions may also appear in pears that have been attacked. In both peaches and pears another type of injury is frequently encountered. In this case the feeding injury is scarcely visible externally but when the fruit is peeled, irregular, discolored areas in the flesh are apparent.

In the East and Midwest the green stink bug, the brown stink bug, the dusky stink bug, and the one-spot stink bug attack various deciduous fruits. The green stink bug and the southern green stink bug sometimes cause serious damage to peaches in the South. On the West Coast the con-spense stink bug is quite destructive to pears, peaches, and other tree fruits. Stink bugs overwinter as adults beneath leaf litter and weeds and emerge in early spring to feed on various hosts. In northern United States there is one and sometimes a partial second generation while in other areas two generations often occur in a season.

Control—Stink bug injury may be greatly reduced if new orchards are planted at least 200 yards from woodlands since many hosts of the green and brown stink bugs are uncultivated trees and shrubs. Planting legumes adjacent to orchards should be avoided, if possible, and weeds, particularly broad-leaved ones, in and around the orchard should be mowed frequently.

Dieldrin, parathion, and lindane give good control of adult stink bugs but the

(Continued on page 24)



Adult form of one-spot stink bug.



Peach deformed by green stink bug.



State REPORTS WESTERN EDITION

Western Growers to Hear About Fruit Growing in USSR
C-A Storage to Claim Attention at Annual Meetings

FRUIT GROWING IN RUSSIA TO SPARK WASHINGTON TOPICS

By JOHN C. SNYDER, Pullman
President and Secretary

FRUIT farming in Russia is the topic selected by one of the key speakers for the 54th annual meeting of Washington State Horticultural Association.

Dr. J. R. Magness, chief, fruit and nut crops research branch, USDA Agricultural Research Service, Beltsville, Md., will describe his trip to the Soviet Union during the three-day convention December 8-10 in Yakima. Dr. Magness also will discuss horticultural research accomplishments and needs in the U. S.

Another leading speaker lined up for the program is Dr. C. Clement French, State College of Washington, Pullman. As president of a rapidly growing land-grant college in a state where there is a great deal of new development, he is expected to present much of interest.

Other state authorities scheduled for the meeting include Dr. L. P. Batjer, principal physiologist, Agricultural Research Service, Wenatchee, and Dr. Robert Sprague, plant pathologist, Tree Fruit Experiment Station, Wenatchee.

The tentative program will feature about 40 speakers who will talk on the following topics:

Insect Problems

This year fruit growers were beset by more insect problems than usual. Codling moth caused more damage than in any previous year since DDT replaced arsenate of lead. In some cases, loss in Bartlett pears was as much as 30%. Pear psylla also caused more-than-usual damage. Explanations of the severe damage from these and other pests, and what to do about them, will be one of the highlights of this year's program.

Red Apple Sports

Another topic that is sure to draw a great deal of attention is red apple sports. Besides listing new varieties, authorities will give the latest information about the maturity and storage of all red sports.

Weed Control

Research workers and growers will give results of experiments and trials in weed control in orchards. This information will be especially valuable to orchardists with young trees.

Thinning

Also on the docket of topics will be

thinning, one of the most costly orchard operations. This year, results from chemical thinning were unusually good; however, some growers still hesitated to spray-thin because of the risk involved. Suggestions for minimizing risk and, at the same time, increasing the chances of getting good results will be presented. This information alone can save the industry thousands of dollars.

Bulk Handling

One of the most interesting subjects to Northwest fruit growers is bulk handling. Research men will give the latest findings, and fruit growers will report on the results of their experience during the past year. The topic is designed to help eliminate weak spots in this method of handling fruit.

C-A Storage

Washington fruit growers are showing more interest in controlled-atmosphere storage. Results of extensive research in other areas and of pilot studies within the state will be presented. The discussion will point out just how this new type of storage may influence storage operations in the state.

Other topics listed on the program include apple scab, pear decline, pear blight, perennial canker, dwarf trees, care of winter-damaged trees, peach twig borer, new peach varieties, decay of freestone peaches during ripening for processing, hardy framework trees, orchard fertilization, and irrigation.

Some 200 questions sent in by growers also will be answered by authorities who have first-hand information.

Details of the program will be available ahead of the meeting. A copy may be obtained by writing to John C. Snyder, Secretary-Treasurer, Washington State Horticultural Association, Troy Hall, State College of Washington, Pullman, Washington.

MARK YOUR CALENDAR

Nov. 20-21—Oregon State Horticultural Society's 73rd annual convention, at Corvallis.

Dec. 4-5—Idaho State Horticultural Society's 64th annual meeting, at Boise.

Dec. 8-10—Washington State Horticultural Association's 54th annual convention, at Yakima.

VARIETY OF TOPICS ON OREGON PROGRAM

ORVILLE HAMILTON, Central Point,

President

C. O. RAWLINGS, Corvallis,

Secretary

CONTROLLED atmosphere storage, which made quite an impact on the fruit industry this past year, will come up for discussion during the 73rd annual meeting of Oregon State Horticultural Society, November 20-21 at Oregon State College, Corvallis. Other important topics on pome, stone, and small fruits, as well as vegetables, will focus attention on many of the problems and cultural practices which growers have faced this year. Here is a tentative program for the two-day convention:

General Session (November 20)

Remarks and announcements—opening address: Orville Hamilton, OSHS president.

"My visit to Thailand": F. E. Price, dean and director, Oregon State College School of Agriculture.

Legislation, regulation, and certification—their uses and abuses in the horticultural field: W. C. Jacobsen, director, California State Department of Agriculture.

Annual banquet: Thursday, November 20, at 7 p.m., in Memorial Union Ballroom on campus.

General Session (November 21)

Super farming and the horticultural industry: G. B. Wood, head, department of agricultural economics, OSC.

Apple and Pear Section

Chairman, Howard Bush

Quality trees for orchard planting: Paul Stark, Jr., Stark Bro's Nurseries & Orchards Co., Louisiana, Mo.

Commercial C-A storage of apples in California: George Jones, research horticulturist, Gerber Products Co., Oakland, Calif.

Pear tree decline: panel discussion. Moderator: C. B. Cory, county extension agent, Medford, Ore. Panel members: Henry Hartman, horticulturist, OSC; L. P. Batjer, USDA horticulturist, Wenatchee, Wash.; and R. C. Blake, USDA horticulturist, Medford.

Chairman, Jan Kurahara

C-A storage research—a progress report: Elmer Hansen, horticulturist, OSC.

Orchard weed control: panel discussion. Moderator: Garvin Crabtree, horti-

OREGON PROGRAM

(Continued from preceding page)

cultist, OSC. Panel members: Clark Amen, American Cyanamid Co., Corvallis; R. H. Leavitt, E. I. du Pont de Nemours & Co., Inc., San Francisco; and R. M. Bullock, superintendent and horticulturist, Lower Willamette Valley Branch Experiment Station.

Fruits of a Lifetime: Union Pacific motion picture.

Chairman, Paul Culbertson

Stony pit of pears: J. A. Milbrath, plant pathologist, OSC.

Increasing fruit set in pears: L. P. Batjer.

Chairman, W. R. Gale

Pear blight control measures: H. J. O'Reilly, plant pathologist, University of California, Davis.

Changing problems in pest control: L. G. Gentner, entomologist, Southern Oregon Branch Experiment Station, and F. E. Ellertson, entomologist, Mid-Columbia Branch Experiment Station.

Fruit growing in the USSR: J. R. Magness, chief, fruit and nut crops research branch, ARS, USDA.

Stone Fruit Section

Report on variety work of cherries, peaches, and prunes: Quentin B. Zielinski, OSC.

Summary of Fertilizer research work on cherries and prunes: O. C. Compton, OSC.

Rootstock research on cherries, peaches, and prunes in California: Carl J. Hansen, University of California, Davis.

Old and new stone fruit plantings in Oregon—past, present, and future: a panel discussion. Moderator: Don Rasmussen, Marion County extension agent, Salem. Panel members: Earl Brown, northeast Oregon area; John Thienes, mid-Columbia; Don Berry, southwestern Oregon; and Kim Roberts, Willamette Valley.

Establishing a stone fruit orchard: Henry Hartman.

Concentrate spraying controlled cherry brown rot blossom blight in 1958: Iain MacSwan, OSC.

How to control dead bud in cherries: Ronald Cameron, OSC.

Promising fungicides for the control of tree fruit diseases: Norman Dobie, OSC.

Breakdown of fruit before and during brining: H. Y. Yang and Ronald Cameron, OSC.

Boron deficiency in prunes and plums in California: Carl J. Hansen.

Sweet cherry pollinating varieties, field function, and consumer utilization: panel discussion. Moderator: Gordon Walker. Panel members: Quentin Zielinski; Bill Shine, Willamette Cherry Growers; and Eric Nelte, grower.

Meeting the market needs of Italian prunes: Roland Groder, OSC.

Processed stone fruit evaluation, canned, brined, dried: A. M. Neubert, Washington State College; Wm. A. Sistrunk, OSC; O. J. Worthington, OSC; and Warren Hunter, Dallas, Ore.

Cutting demonstration: stone fruits.

Small Fruits Section

Chairman, Gerald Morlan

When and how to train cane berries: a panel discussion. Moderator: R. Ralph Clark, OSC. Panel members: J. K. Allm, Salem, and Elmer Sturm, Troutdale.

Progress report on mildew control on cane fruits: Edward K. Vaughan, plant pathologist, OSC.

Weed control of small fruits: forum. Duane Hatch, Birds Eye Division, Gen-

eral Foods Corp., Hillsboro, Ore., and R. M. Bullock.

Joint Session with

Vegetable Crops Section

Fresh market possibilities—fruits and vegetables: Hugh Campbell, fruit and vegetable broker, Portland.

Root rots in small fruits: Edward K. Vaughan and Robert L. Powelson, plant pathologists, OSC.

Progress report on new small fruit varieties: George F. Waldo, USDA horticulturist, OSC.

Small fruit varieties demonstration: R. E. Moser, extension fruit and vegetable processing specialist, OSC; W. A. Sistrunk, food technologist, OSC; and G. F. Waldo.

Farm labor problem. Mexican nationals: Ron Hardman, Independence, Ore. Spanish Americans: Earle Stonebrook, Independence. Local labor and school situation: a state representative.

Luncheon meeting of Five-Ton Strawberry Club and Strawberry Council at Memorial Union Building Ballroom.

Continuous summer-bearing and non-everbearing strawberry varieties in California: R. S. Bringham, pomologist, University of California, Davis.

Strawberry irrigation research—a progress report: Walt Neuberg, Birds Eye Division, General Foods, Hillsboro, and D. D. Evans, soil scientist, OSC.

The strawberry certification programs of Oregon, Washington, and California: Norman D. Dobie, certification specialist, OSC.

Strawberry plant spacing: Walt Kahle, Birds Eye Division, General Foods, Hillsboro, and Martin Carstens, superintendent, Northwestern Washington Agricultural Experiment Station, Mt. Vernon.

Vegetable Crops Section

Chairman: Al Kaser

Some fertility problems with vegetable crops: T. L. Jackson, soil scientist, OSC, and H. J. Mack, horticulturist, OSC.

Recent developments in weed control: Garvin Crabtree.

Improving irrigation problems on vegetable crops: Marvin Shearer, extension irrigation specialist, OSC.

Minor elements: Karl Baur, manager,

Chemicals Division, Pacific Supply Co-operatives, Portland.

The bush bean. Breeding: W. A. Frazier, horticulturist, OSC. Mechanical phases of harvesting bush beans: J. B. Rodgers, head, agricultural engineering, OSC.

Chairman: Jim Bushue

Bean rust: Edward K. Vaughan.

Improved ground application methods for low-growing row crops: J. C. Chamberlain, USDA entomologist, Forest Grove, Ore., and V. D. Young, USDA agricultural engineer, Forest Grove.

Understanding problems common to growers and processors of horticultural crops: panel discussion. Moderator: Cecil Tulley, executive vice-president, Northwest Canners & Freezers Assoc.

"Don't Be Inane, Use Your Brain, Work for Wayne": Wayne Heasley, grower, Hillsboro.

INSECT-DISEASE PROBLEMS TO KEYNOTE IDAHO MEET

RALPH GARMAN, Payette, President

ANTON S. HORN, Boise
Secretary-Treasurer

FRUIT insect and disease problems are among topics scheduled for the 6th annual meeting of Idaho State Horticultural Society, December 4-5, at Hotel Boise, in Boise.

H. C. Manus and A. W. Helton, University of Idaho, will talk on insect and disease problems, respectively. Two other University of Idaho speakers, Walter Kochan and Leif Verner, will discuss prune disorders and problems, respectively.

J. R. Magness, chief, fruit and nut crops research branch, USDA, Beltsville, Md., will give a talk on farming and fruit growing in the USSR.

Discussions also will be held on advertising and marketing problems. The traditional banquet and dance is slated for the evening of December 4.

Holman J. Swinney, state historian, will be the principal speaker, and Robert Smylie, governor, will be guest of honor.

They Pick Berries 1500 Miles Away

LITERALLY and figuratively the John Darnell family of El Mirage, Ariz., is a cotton pickin'-strawberry picking crew. The family has driven about 18,000 miles in six years to pluck strawberries at the 120-acre Klicker farms in Walla Walla, Wash.

While visiting relatives in Weston, Ore., six years ago, the Darnells, including a son, Weymon, and a daughter, Earline, decided to try strawberry picking at the Klicker farms. They have made the 1500-mile trip (one way) to Walla Walla each year since then to pick berries.

Darnell has year-around work with a plumbing firm. He and his family just got started working in fruit-producing areas away from home each summer long before they started at Klickers. They "liked it and have just never stopped."

The son and daughter have been

"picking cotton, strawberries, peaches, or something ever since they were that high," Darnell gestures. Besides finding strawberry picking a valuable experience, Weymon and Earline earn some money to help finance their college education.—Fenton Harris.



Earline and Weymon Darnell hold flats of strawberries while their parents do a little sampling at the 120-acre Klicker farms in Walla Walla.

AMERICAN FRUIT GROWER



When your APPLE TREES show these signs
...top yields may be gone for years!

Magnesium deficiencies mean...

it's **TOO LATE** for **TOP PROFITS**

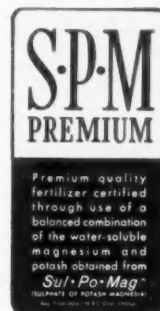
Magnesium deficiency danger signs on your fruit trees—indicated by blotchy, curling, yellowish-brown leaves—mean the damage is already done. Apple trees, for instance, may take as long as three years to recover—even when magnesium is supplied immediately after deficiency signs appear. Trees continue to form fruit of poor color and quality, to defoliate early, and to be susceptible to winter damage. Don't wait until this happens in *your* orchards, because then it's **TOO LATE** for **TOP PROFITS**.

Right now . . . this fall, apply readily-available, fast-acting, water-soluble magnesium, available in the form of Sul-Po-Mag, in complete, mixed, premium fertilizers. Sul-Po-Mag—also called SPM stops magnesium deficiencies before they start. An investment of just pennies per tree will guarantee both water-soluble magnesium and sulphate of potash—and give you fruit of better quality. Ask for premium fertilizer containing SPM.



Avoid magnesium deficiency symptoms like these in (left to right) peach, pear, and cherry leaves by applying a complete fertilizer containing Sul-Po-Mag.

THIS SEAL



IS YOUR PROOF
THAT FERTILIZER CONTAINS

Sul-Po-Mag

Water-Soluble Double Sulphate of Potash-Magnesium
($K_2SO_4 \cdot 2MgSO_4$) 22% K_2O —18% MgO

INTERNATIONAL MINERALS  **& CHEMICAL CORPORATION**
POTASH DIVISION ADMINISTRATIVE CENTER: SKOKIE, ILLINOIS

CUT PRUNING COSTS MAKE BIGGER PROFITS



NEW! HOMELITE ELECTRIC PRUNER

- Powerful — cuts 1 3/4" limbs
- Lightweight — only 6 1/2 lbs.
- Rim type saw cuts cleanly
- No freezing problem
- Runs anywhere from 90 pound Homelite Generator

Here's the fastest, easiest to use, power pruner on the market today. One that will trim your pruning costs to the bone and help you make a bigger profit from your fruit-growing business. It's a lightweight, powerful saw, not a shear — makes clean cuts that heal quickly and resist disease. Two pruners operate from a 90 lb. Homelite Generator that can be carried easily over mud and snow. Generator will also provide 115 v. AC current during power-failure emergencies or operate tools and lights anywhere. Write for complete details and name of your nearest Homelite Pruner Dealer.

HOMELITE
A DIVISION OF TEXTRON INC.
PORT CHESTER, NEW YORK, U. S. A.

Apples

Revolutionary Entry

THE Starkrimson Delicious apple, Bisbee strain, was hailed as a revolutionary new entry in the Delicious apple field at recent dedication ceremonies in Hood River, Ore. More than 550 horticulturists, growers, shippers, and exporters from the United States and Canada gathered for the program at the Roy Bisbee orchards.

Robert D. Holmes, Oregon governor, who accepted the dedicatory plaque for his state, praised the early-coloring, all-red, fruit-spur type tree as a "symbol of what can be done to improve the national agricultural economy." He congratulated Roy Bisbee for his "sound



Looking on as Ann Albertson, Washington State apple queen, samples a Starkrimson Delicious, are Roy Bisbee (left) and Paul Stark, Jr. (right).

foresight in discovering, then carefully developing this new fruit that will be of major value to the fruit industry."

Principal speakers also included Harry Byrd, Jr., Virginia senator, whose family operates some 5000 acres of apple orchard, the largest in the world. Senator Byrd pointed out that the Starkrimson produces 100% all-red apples, even in the shaded parts of the tree. "The Byrd family is planting 9000 trees of this variety as soon as we can get them," he said. "Some of the Starkrimson trees we planted one and a half years ago bore all-over-red apples this year," he explained.

Dr. H. B. Tukey, chairman of the horticulture department at Michigan State University and associate editor of *AMERICAN FRUIT GROWER*, pointed out that the new semi-dwarf tree, with its young and heavy bearing characteristics, appears to meet the need for lower costs in apple production, along with quality and fine color.

Dr. Fred Motz, former USDA foreign market representative, said that the variety will pack out 100%

Extra Fancy color. "It is only a question of time when this Starkrimson Delicious apple is going to replace all the present Delicious," he said.

The original Starkrimson tree was sold by Roy Bisbee, who discovered the variety in 1945, to Stark Bro's Nurseries & Orchards, Co., Louisiana, Mo., for \$25,000, the largest sum ever paid for a fruit tree.

Pears

Faster Handling

WHEN Tri-Valley Packing Association switched from small lug boxes to large fir plywood bins during the recent pear harvest in its northern California territory, more fruit was handled faster and at less cost.

A total of 6000 bins was purchased, replacing about 144,000 picking boxes, with each bin holding the equivalent of 24 boxes.

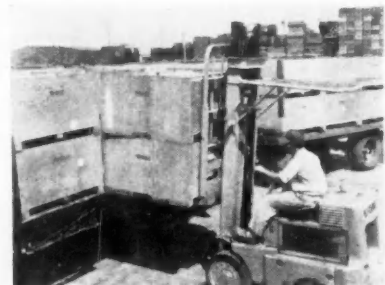
During the picking season, trucks delivered empties to the growers' orchards, where they were distributed by lift trucks. Laborers picked into metal buckets.

The filled bins were trucked by fork lift to the loading area, where they were stacked two high onto flatbed trucks. At the plant, they were stacked as many as seven high in cold storage and ripening rooms.

As the fruit was ready to go on the line, bins were deposited on a wide-belt conveyor and carried to a specially-designed dumping device.

One result of Tri-Valley's experiment with these containers is that the amount of fruit in storage may be increased about 60%.

Each fir plywood bin weighs 125 pounds; its equivalent in boxes and half-pallet weighs 245 pounds. For a ton of fruit in lug boxes, for example, the association pays for hauling 2400 pounds, or 20%, while the same amount of fruit in bins weighs only about 2200 pounds, or 10%.



Use of fir plywood bins reduces truck-loading time by about half. Bins also make a sturdier load.

AMERICAN FRUIT GROWER

THE QUESTION BOX

Don't be perplexed! Send us your questions—no matter how big or small. A 4-cent stamp will bring you an early reply. Address: The Question Box, AMERICAN FRUIT GROWER, Willoughby, Ohio.

VALUE OF A PEACH TREE

I'm losing part of my peach orchard to the freeway and would like to know how to figure the value of my trees. Can you help?—Illinois.

According to the Illinois Horticultural Society, which recently made a study of this problem of evaluating fruit trees, a peach tree is worth \$2.00 per tree per year up to the 5th year. A gain of 40 cents per tree occurs from the 5th year to the 10th year. From the 10th to the 20th year there is no gain and there is a decrease in value of 40 cents per tree per year from the 20th year on. According to this formula, the maximum value of a peach tree would be \$14.40.

GRAPE LEAFHOPPERS

I have been using DDT to control grape leafhoppers but the insect seems to be growing resistant to this insecticide. What do you recommend?—California.

In California malathion has given good results against grape leafhoppers, especially when applied as far as possible to the underside of the leaves. For details of the best program to follow as to materials, schedules, and methods of application, get in touch with your local or state extension agency who is familiar with conditions in your area and in the best position to advise you.

BLIGHT-RESISTANT PEARS

Where can I purchase trees of the blight-resistant pears, Ayres and Orient?—Tennessee.

Try the following Tennessee nurseries: Boyd Nursery, McMinnville; and Shadow Nursery Co., Southern Nursery and Landscape Co., and Tennessee Valley Nursery, of Winchester.

WAXER WANTED

Please send me the name of a company that makes equipment for waxing apples.—Indiana.

Try Aeroglide Corp., 510 Glenwood Ave., Raleigh, N.C.; Florida Div., Food Machinery & Chemical Corp., Lakeland, Fla.; Lobe Pump & Machinery Co., Gasport, N. Y.; Tew Mfg. Corp. (Trescott & Market Maker), Fairport, N. Y.; Trescott Co., Fairport, N. Y.; and Tri-Pak Machinery Service, Inc., Harlingen, Tex.

THE PACKER

Can you give me the address of The Packer, a produce newspaper?—New York.

Their address is Second & Delaware Sts., Kansas City, Mo.

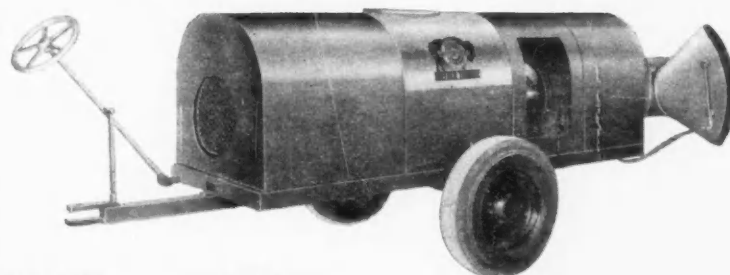
PEACH PROBLEM

I live on the eastern shore of the Mediterranean Sea where the climate is humid and mild. My peach trees hold their foliage through December and sometimes into January. Is there some way I can hasten the dormancy period?—Lebanon.

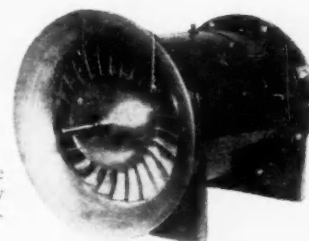
Your problem is not unlike that experienced in many other parts of the world where there is insufficient winter cold to break the rest period. We experience it with some fruits in Florida and southern California. The only suggestion we have is to plant deciduous fruits on higher elevations where there is enough cold to break the rest period. There have been many attempts to use plant regulators and certain sprays but while the idea is tantalizing, the results have not been practical.

NOVEMBER, 1958

- Extremely Long Carry
- Accurate Directional Control
- Deep Foliage Penetration



All This and More with a Buffalo Turbine Model CHS Sprayer



Such carry, control and penetration are made possible by the exclusive turbine type Axial Flow Blower—the heart of all Buffalo Turbine Duster-Sprayers.

The Model CHS is a completely enclosed streamlined model, extra low and narrow—ideal for orchard spraying . . . and row crops as well. Can be purchased as a liquid sprayer only or as a combination machine for Turbo Dusting and Turbo Spraying.

Long life and minimum maintenance are assured by such quality features as Wisconsin VG-4 air cooled engine, stainless steel liquid tank with mechanical agitation, heavy steel channel frame and many more.

The exclusive Buffalo Turbine Axial Flow Blower.

- ★ Produces Velocities from a gentle breeze to 180 M.P.H.
- ★ 14,000 cu. ft. of air per minute.
- ★ Made of strong, die-cast aluminum with individual precision cast fan blades and straightening vanes.

Let us give you all the cost saving facts.

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BUFFALO TURBINE

AGRICULTURAL EQUIPMENT CO., INC.

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PLANT VANCE DELICIOUS

Be on the Early Market . . . Enjoying Top Prices!

Vance Delicious Trees now available at Waynesboro Nurseries, Virginia's Largest Growers of Fruit Trees. It is suggested that orders be placed early for fall and spring planting as supply has never equalled demand. You are invited to submit planting list for quotations on Vance Delicious and other Fruit Trees.

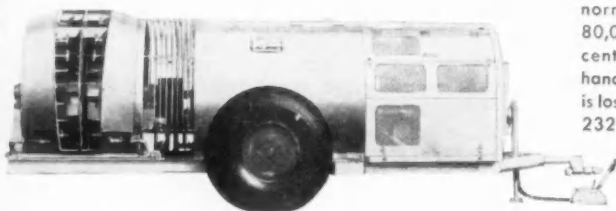
WAYNESBORO NURSERIES Waynesboro, Virginia

"With our MYERS AIR speed, performance a

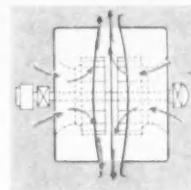


THE 164-ACRE FARM of Mr. Weedon Teets produces 40,000 bushels of apples including York Imperial, Stayman, Grimes Golden, Red Delicious and Jonathan; and 25,000 bushels of peaches including Summercrest and Elberta. Mr. Teets also raises alfalfa and Hereford cattle.

THIS IS THE NEWEST MYERS AIR SPRAYER 232 SERIES



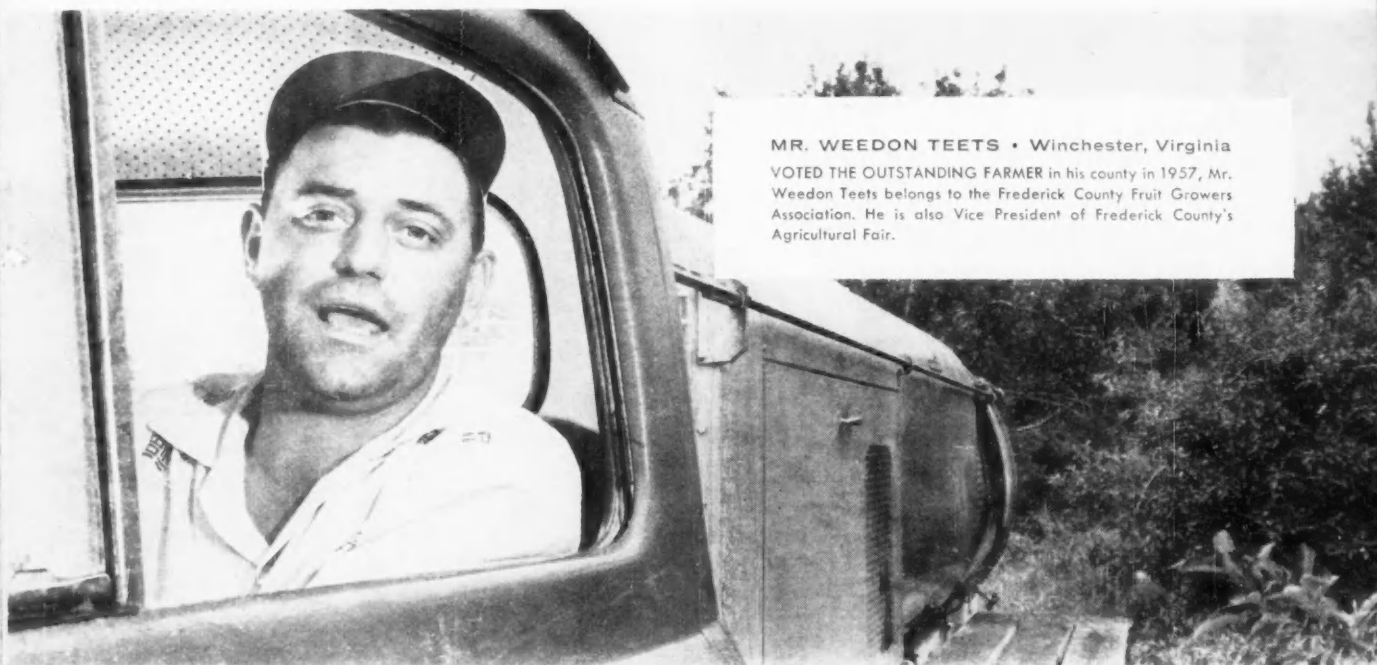
It has the capacity and performance for two-way spraying under adverse wind conditions in mature apple orchards and groves. This means reserve capacity for normal spraying conditions. Delivers 80,000 CFM of air directly off two 32" centrifugal fan blades. With this air handling technique, no useful air velocity is lost by turning vanes or deflectors. Myers 232 Series features 188-HP V-8 engine, epoxy coated 500 gallon tank and a high-capacity centrifugal spray pump.



Air stream is delivered from fan blades directly through the tree. Result: a more penetrative drive into tree foliage is obtained. Air is not blown into a corner where it can't get out.

AMERICAN FRUIT GROWER

R SPRAYER we get
and save \$2,000 a year"



MR. WEEDON TEETS • Winchester, Virginia
VOTED THE OUTSTANDING FARMER in his county in 1957, Mr. Weedon Teets belongs to the Frederick County Fruit Growers Association. He is also Vice President of Frederick County's Agricultural Fair.

"In the first season with our Myers Air Sprayer," says Mr. Weedon Teets, "we saved \$1000 in labor costs and another \$1000 in materials. The high speed performance of this Myers rig means that we now cover in 22 man hours an acreage that used to require 180 man hours to cover.

"Due to the better penetration and material distribution of the Myers Air Sprayer, we now use 10% less solution on each cover spray. It even penetrates cones and curled up

leaves. That's absolutely essential for control of pests.

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Tree trimmings are one of your best and cheapest sources of mulch. A Fitchburg Farm Chipper will reduce prunings quickly to moisture-holding wood chips. You eliminate the job of hauling brush.

A mulch of wood chips keeps weeds down... discourages rodents... gives orchards better tilth... a moisture-holding capacity to bring trees through dry spells.

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Anywhere you can drive your tractor, you can chip prunings with a Fitchburg Farm Chipper. Combine your work, chip your tree trimmings with a Fitchburg Farm Chipper, and mulch your orchard in ONE SIMPLE OPERATION.

This Fitchburg Fact Folder will tell you about Fitchburg's exclusive: One Year Guarantee—Patented Safety Spring-Activated Feed Plate—with complete machine specifications included.

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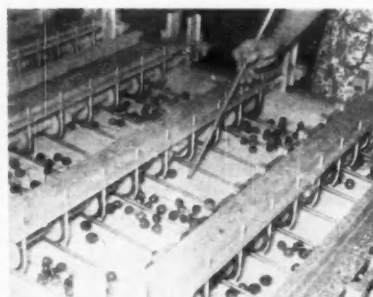
Speeds Up Packing

INVENTION of a cherry cluster cutter marks a step forward in the mechanization of packing operations. Introduced last year in the Stockton-Lodi area of California by Oneto-Gatelli Co., manufacturer, the equipment speeded up packing this year at Rugani Bros. & Co., one of the state's leading shippers of cherries from this district.

The cutter features a series of revolving circular blades mounted on a shaft. Cherries move on a conveyor belt past these knives. Below each blade is a slanting metal "finger" which raises the stems to the cutting edges of the knives. The clusters are cut apart and move underneath, on to the packing stations.

Prior to going through the cutter, the cherries pass through a blower that removes leaves, dirt, and other foreign material.

The Rugani firm puts up a premium package of double row faced pack cherries in standard nailed boxes, as well as bulk pack lugs of Tartarian, Bing, and Royal Ann.



A worker points to steel "fingers" which slant down to catch stems of cherries and raise them to circular knives which separate the clusters.

PLUMS

Remove Black-Knot

BLACK-knot on plum trees, a disease of the wood only, should be cut out and destroyed, according to Cornell University's New York State Agricultural Experiment Station, Geneva. These growths, caused by a fungus, produce numerous spores which can create new infections. The disease seriously interferes with the proper growth of the tree and reduces its productivity.

Infected branches should be cut back about 6 inches from the visible black knot and all such wood burned.

In addition, the trees should receive at least one thorough application of a copper spray in the spring as the buds are breaking. The spray mixture recommended is 3 pounds of copper sulfate (snow form) and 6 pounds of hydrated lime in 50 gallons of water.

PEACHES

Varietal Returns

ACCORDING to a survey of 30 New Jersey peach farms after the 1957 season, it cost an average of about \$2.55 to grow, harvest, and market a bushel of peaches.

Gross receipts averaged \$2.96 per bushel. Highest gross receipts per acre were scored by that old standard, Elberta, followed by Goldeneast, Hale, and Brackett. Above average returns per bushel were brought by Sunhigh, Hale, Brackett, and Sunrise. Lowest on both counts was Golden Jubilee.—Dana G. Dalrymple, agr'l ext. economist, U. of Conn.

Grapes

Gibberellin Boosts Size

GIBBERELLIN-treated grapes shipped by Richard Bagdasarjan, of Mecca, Calif., a packer known as "Mr. Grape," sold at auction on the New York market this past spring at the excellent price of \$8.80 average, while other grapes that day were averaging \$5.78.

This first New York shipment of Thompson seedless came from Coachella Valley, where University of California scientists cooperated with Merck and Co., Inc., in field scale testing gibberellin this year. Tests were also conducted in other grape growing areas of California.

About 25 acres of Thompsons in the valley were treated with this new chemical growth stimulant. The material was applied at rates of 20 and 40 parts per million using 50 and 100 gallons of water per acre on girdled and ungirdled vines, both young and old. An estimated 20 days before harvest, treated vines had clusters with many berries half again as large as those on untreated plots.

Timing of application is best when berries are starting their fastest growth.

Spraying with gibberellin to increase berry size shows promise as a replacement for girdling, the practice previously used, which is expensive and often difficult to do because of labor shortage.



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- Propagation of Plants, by M. G. Kains and L. M. McQuesten. Gives the working methods of plant propagation. 560 pages \$6.00
- Dwarf Fruit Trees, by Lawrence Southwick. Complete information on selection, planting, cultivation. 126 pages \$2.95
- Fruit Pest Handbook, by AMERICAN FRUIT GROWER editorial experts. This pocket-size, illustrated manual gives the latest control measures for all the major diseases and insect pests. 100 pages \$2.00
- Adventures in Beekeeping, by Robert D. Galinsky. A true, exciting story of the author's experiences as an apiarist over an eight-year period. 52 pages \$2.00
- Song of an Orchardist, by Albert L. Mason. The best-loved poems of this fruit grower-philosopher who writes about life as a fruit farm. 42 pages \$1.00
- American Wines and Wine-Making, by Philip M. Wagner. A practical illustrated book for the small grape grower and home wine-maker. 230 pages \$4.50
- Apples and Apple Products, by E. M. Smock and A. M. Neubert. A valuable reference book on the finished apple with information on many apple products. 486 pages \$9.75

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By HENRY BAILEY STEVENS

A Name CHOOSING the right name is often hard work.

For the If our society did not require parents to name their offspring at once, many a child would probably have to struggle along for years with only a nickname or some term of endearment.

Place

There isn't the same compulsion to christen a farm, but apparently some ferment is active because each year shows an increasing number of brave new titles. After all, it is just good business to get behind a definite trademark. In today's store you ask for some particular brand of soap; whenever a new product goes on the market, you may be sure that many days of agonizing effort and probably thousands of dollars have gone into the selection of its name.

A dip into AMERICAN FRUIT GROWER subscription mailing lists shows some interesting samples: Lake Breeze, Sun Ridge, Rosemary, Tiger Mountain, Vita-Ful, Nobscott Mountain, Apple Grove, Ore Hill, Kentucky Cardinal, Rainbow, Sunny Slope, Richland, Applecrest, Pomona Fruit, Meadow Brook, Orchard Hill Farms.

Location often suggests the right name. Steele Hill Farm, for example, is a natural, and White Mountain Orchards, Sunshine, color, and health have frequently provided inspiration. Sunkist has been a title hard to beat.

The individual with a limited or special market may dare to use humor; witness, for example, Triple Trouble Farm and Head Acres, Boys' Farm and Golden Rule Farm have proved effective banners in their campaigns for juvenile rehabilitation. Undoubtedly Herbert W. Collingwood won the hearts of thousands by identifying himself with Hope Farm, for what do farmers need more than hope?

We would like to hear from readers about their adventures in nomenclature. Tell us your experience or write us about your own problem in naming your orchard.

Address your "Windfalls" contributions to Henry Bailey Stevens, AMERICAN FRUIT GROWER, Willoughby, Ohio.

Low Processor Prices

WASHINGTON—After weeks of negotiation and three price reductions, Northwest processors finally accepted the lowered price offerings of both the Washington Freestone Peach Association and the Washington-Oregon Canning Pear Association.

Peaches were settled at \$47.50 a ton for No. 1 freestones to \$32.50 for No. 2s. On the No. 1s this represented a reduction of \$10.00 from the growers' original asking price.

Pears went for \$77.50 a ton for No. 1s and \$50.00 for No. 2s as against the \$85.00 and \$55.00 asked.

The Washington Freestone Peach Association felt that its bargaining power was diminished by the weak peach bargaining association in California which this year accepted a \$5.00 reduction from the \$52.50 originally asked for regulars. Likewise, it was felt that the greater strength of the California Pear Bargaining Association favorably influenced the bargaining of the Northwest group.

Ammonia For Peach Rot

CALIFORNIA—Effective treatment of Rhizopus rot in peaches may be obtained by ammonia gas fumigations similar to those used in preventing some citrus fruit diseases, according to preliminary results of experiments conducted by University of California, Riverside.

Good control of peach rot was obtained by two six-hour fumigations with a 250 ppm concentration of ammonia. No injury to the fruit was indicated. However, the high dosages required to control severe inoculation of the rot under experimental conditions in some cases caused slight damage to the fruit.—Neale Leslie.

Strawberry Champions

OREGON—An early 1958 harvest causing a lack of pickers for many Oregon strawberry growers proved no handicap to Polk County growers Tony and Stan Eisele of Red Prairie who made an all-time record as new members of the Oregon Strawberry Council's Five-Ton Club.

The winning Eisele brothers produced a total of 41.93 graded tons from their 4.35 acres of Siletz berries to top all other records with a 9.64-ton average. A total of 12.58 gross tons per acre was picked and delivered.

Herbert Hollman of Hillsboro produced the second highest average yield with 7.25 tons per acre on a 6-acre planting. This also made Hollman, who is a new strawberry grower, top man in Washington County.

Fred and Don Meyers maintained their club status for the third consecutive year with 5.68 tons per acre on 9 acres of Marshalls. S. E. Starr qualified for a second time with a 5.03 yield on 14.2 acres of Northwests.

Other 5-ton winners were as follows:

Washington County: Waibel Duyck, Bob Sunamoto, Lloyd Duyck, Lloyd Petrie, J. L. Bridges, the Wilkes brothers of Hillsboro, Robert Smith, Edward Porter, Lawrence Koppin, Fred Brandt, Edmund Duyck.

Marion County: L. H. Bunning, Douglas and Richard Heater, Charles and Pat Johnston, J. W. Richardson, A. M. Zahare, Gordon Seeley, W. L. Peterson.

Yamill County: Fred Herring, Jr., Frank Armentrout, Mrs. Vera Jones, Chester L. Mulkey, Peter Ediger, Luther Ware.

Hood River County: Sheldon Lawrence, Homer Akiyama, George Annala, William Vollmer.

Columbia County: Kenneth Asbury. **Clackamas County:** J. E. Harvis. **Umatilla County:** Bob Winn.—Lillie Madsen.

NOVEMBER, 1958

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- **Fruit Nutrition**, by Norman F. Childers. Tells all about fruit tree fertilizer deficiencies and minor element nutrition. 910 pages \$10.00
- **Plant Regulators in Agriculture**, edited by H. B. Tukey. 17 specialists present the different uses of plant regulators; tell what they are, how they operate, how plants respond. 269 pages \$6.50
- **Destructive and Useful Insects**, by Metcalf, Flint, and Metcalf. Contains descriptions and photographs of all fruit and vegetable insects. 1071 pages \$12.50
- **Commercial Fruit and Vegetable Products—4th Edition**—by W. V. Cruess. Useful reference on principles and production methods for canners, freezers, juice producers, preservers, and other food processors. 884 pages \$15.00
- **Spraying, Dusting and Fumigating of Plants**, by W. S. Hough and A. F. Mason. Tells how to apply insecticides, fungicides, soil fumigants, herbicides, and growth regulators. 726 pages \$12.50
- **The Recovery of Culture**, by Henry Bailey Stevens. Here is a book which will give you a new outlook and stimulate your thinking. 247 pages \$3.00
- **Western Fruit Gardening**, by Reid M. Brooks and C. O. Hesse. A handbook for the home gardener on fruit varieties; climatic adaptations; soil, water, and nutrient requirements; pruning and propagating; disease and pest control. 237 pages \$4.50

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20B

FORECASTING PEACH MATURITY IN COLORADO

A NEW method of forecasting maturity of Standard Elbertas in Colorado may save the state's peach growers money, as well as aid harvesting and marketing operations, and reduce waste.

The method, which was tried out for the first time this year, is based on daily maximum temperatures prior to July 1, together with an additional adjustment for earliness of bloom. For cool days, a day or part of a day is added toward ripening date of Standard Elbertas, which make up the bulk of Colorado peach shipments.

Developed by J. W. Gannaway and William J. Cremens, of USDA Agricultural Marketing Service, Fruit and Vegetable Division, the new technique promises to be a more accurate guide to peach maturity than the one used up to now by the industry.

Predicting maturity by the old method is not too difficult in seasons of normal temperature fluctuations. Growers can figure it will take 126 days from time of full bloom until the first carload begins its trip to market.

However, in an unusual year, growers sometimes miss the maturity date as much as six or seven days. Instead of 126 days from bloom to basket, the peaches may mature in as few as 119 or as many as 131 days.

An early or late prediction can throw the entire marketing operation off. Long before the first of July, growers and shippers plan for the packout. Some 4000 migrant workers may have to be scheduled for picking and packing. If the maturity forecast is too early, workers stand idly by until the fruit ripens or they move on to another job. If the forecast is too late, growers may find themselves with ripe fruit and a shortage of labor.

The same problem applies to government inspectors, who come from distant locations. If they arrive too early, they have to wait for the peaches to be harvested. If they don't come in time, shippers cannot comply with inspection requirements.

Inaccurate predictions also disrupt the tight schedules of trucking firms that handle perishable commodities. Truckers either have their equipment tied up in a long wait or they miss out on the deal entirely.

Brokers and buyers who arrive too late or too soon also incur losses.

The new procedure of predicting maturity may mean an improvement, if not an end, to this situation. Tested with data for the seasons from 1931

through 1957, the method would have worked well even in years of unusual temperature fluctuations. For 1942, a year of extremely long growing period, Gannaway and Cremens would have missed the maturity date by a single day; for 1939, with its short growing period, they would have hit the exact date. The industry missed by five and seven days for these same years.



Accurate prediction of peach maturity is vital in keeping harvesting and marketing operations in motion and in saving growers from losses.

An Important Role

A GIBBERELLIN compound may play an important role in the development and quality of citrus fruit when applied in suitable concentrations at the right stage of development.

Experiments with the gibberellin material on Thompson navel oranges were conducted at University of California Citrus Experiment Station, Riverside, by C. W. Coggins and H. Z. Hield, both of the horticulture department. A 13% increase in vitamin C and a 9% increase in juice content were obtained when almost full-size oranges and nearby leaves were dipped in potassium gibberellate (KGA). The rind was also smoother and thinner.

The treatment caused no differences in sugar content, total acids, puffiness, size, weight, or tendency to drop. However, treated fruits were greener than untreated ones when harvested.

More extensive experiments are being conducted with KGA on Valencia and navel oranges, lemons, and grapefruit.

A new peach will make its debut in California next year. The "Tejon," developed by James M. Lesley, genetics professor emeritus, University of California, Riverside, is an early maturing, yellow-fleshed peach especially well suited to regions with warm winters such as the coastal plain and valleys of Southern California.—Noble Leslie.

AMERICAN FRUIT GROWER



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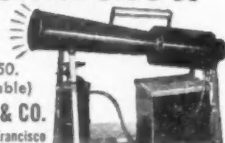
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Berries

Production Trend

THE conventional matted-row method of producing strawberries is not the best way to obtain the highest quality and yields. Experiments at various state experiment stations have shown that narrow rows of spaced plants produce high yields of extra large strawberries.

At Cornell University the average yield of six varieties was 4933 quarts per acre in matted rows and 9933 quarts in a hill system. This hill system consisted of three rows to a bed, with 12 inches between rows, 12 inches between plants, and 30 inches between each bed. About 30,000 plants are required per acre. All runners are kept removed; thus, the entire crop is picked from the original mother plants. Of course, runner removal is a real problem.

Another development is the late-summer method of planting introduced by Dr. M. M. Parker, of Virginia Truck Experiment Station, Norfolk. By planting strawberries in early August, the plants became well established before cold weather and there is little or no runner production. The next spring fine crops of unusually large berries are produced. This method is being used commercially and is especially successful with the Pocahontas variety.

USDA research workers have found that strawberry plants can be kept in perfect condition for many months if dug when completely dormant and stored at 28° F. in polyethylene bags. This procedure provides a source of plants for summer planting since fresh-dug plants are not generally available at that time.

Still another recent development is the use of black plastic as a mulch for control of weeds.

At Rayner Brothers, Inc., nursery, in Salisbury, Md., these developments were combined into a method of growing strawberries known as "Rayner's 60-Day System."

The main features of the Rayner system consist of preparing the soil so that it contains an abundance of well-rotted manure or other organic matter. A commercial fertilizer is also mixed into the soil about a week before planting. The plants are set in a slightly raised bed, 18 inches wide. There are two rows 12 inches apart and the plants are the same distance apart in the rows. The soil is pressed around the roots.

A sheet of black plastic, 3 feet wide, is spread over the row. A razor blade is used to cut about a 4-inch slit over each plant, and the

leaves are pulled through. The plastic is then pegged down tightly, and dirt is pulled along the edges.

A heavy application of sawdust, peat, or leaf mulch is put on the ground between beds, and a ridge of dirt is prepared around the entire plantings. This ridge holds water that runs off the plastic and seeps into the beds.

The plants soon begin to bloom, and the blossoms are not removed. Within 45 to 65 days after planting there will be a fine crop of ripe strawberries. All runner plants are kept removed, causing the mother plant to become unusually large. The next season this plant will produce an amazing yield of fine fruit, and the third season another crop. These three crops are about the life of such a planting.

The plastic is kept in place all the time, since it not only prevents weed growth, but keeps the berries off the ground and prevents fruit rot. During dry weather the plants can be watered, and in August a treatment of liquid fertilizer is applied by pouring it through the slit around each plant. A foliar-type fertilizer that will not burn should be used.

During the winter the beds should be covered with straw or hay to prevent cold damage. This mulch should be removed to the middle of the rows as soon as new growth begins in the spring, and should be used to cover blossoms during frost periods. — Walter F. Jeffers, Salisbury, Md.



Rayner plastic mulch planting system features three beds of two rows each, with 50 plants per bed. Redglow was planted in right bed; Pocahontas, center; and Tennessee Beauty, in left bed. Jackie Rayner shows the planting date, April 7.



Ripe berries were picked 47 days after planting. Redglow produced first ripe fruit on May 24, and Pocahontas and Tennessee Beauty, two days later.

AMERICAN FRUIT GROWER

Chevrolet Task-Force 59 arrives!

Here to handle your farm hauls with new might, new models, new money-saving power! Here with the latest engineering ideas coupled with traditional Chevrolet economy and dependability!

They're here to handle the toughest farm jobs! Task-Force 59 models combine new advances with the proved advantages that have made Chevrolet America's No. 1 truck year after year. There's a new high-performance Thriftmaster 6, for example, to stretch the distance between gas stops. Bigger brakes are featured in all Series 31 and 32 light-duty models. And Chevy's Positraction rear axle—ideal for off-the-road work—is offered in the same Series as an extra-traction, extra-cost option. Your Chevrolet dealer will fill in the details—everything from colors to special equipment available. He'll show you a wide choice of Chevy trucks—a dozen different pickups, including 4-wheel drive models in both the Fleetside and Stepside design. See his new Task-Force 59 lineup soon. . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

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CALENDAR OF COMING MEETINGS & EXHIBITS

Nov. 5-6—Minnesota-Wisconsin fruit growers annual meeting, Hotel Winona, Winona, Minn.—J. D. Winter, Sec'y, 719 S. E. 5th St., Minneapolis 14, Minn.

Nov. 5-6—Western Growers Association, Biltmore Hotel, Los Angeles, Calif.—Frank W. Castiglione, Sec'y, 3991 Wilshire Blvd., Los Angeles 5.

Nov. 12—Washington State Council of Farmer Cooperatives, Benjamin Franklin Hotel, Seattle.

Nov. 12-13—Wisconsin State Horticultural Society annual meeting, Retlaw Hotel, Fond du Lac.

Nov. 18-20—Washington State Weed Conference, Moses Lake.

Nov. 20-21—Oregon State Horticultural Society 74th annual meeting, Deason State College, Corvallis. C. O. Rawlings, Sec'y, Corvallis.

Nov. 21-23—Illinois State Horticultural Society and Illinois Fruit Council, annual convention; Fruit queen contest, Nov. 24, Abraham Lincoln Hotel, Springfield.—Harold J. Hurdley, Sec'y, Carbondale.

Nov. 24-25—Kansas State Horticultural Society Annual Meeting, Manhattan.—W. G. Amstein, Sec'y, Manhattan.

Dec. 1-2—Washington Crop Improvement Association annual meeting, Pullman.

Dec. 1-3—New Jersey State Horticultural Society, annual meeting, Hotel Dennis, Atlantic City.—E. G. Christ, Sec'y, New Brunswick.

Dec. 1-3—Ohio Agricultural Experiment Station Fruit School, Wooster.—Freeman S. Howlett, Chairman, Dept. of Horticulture, Wooster.

Dec. 2-4—Michigan State Horticultural Society, Civic Auditorium, Grand Rapids.—H. D. Hoodman, Sec'y, East Lansing.

Dec. 3-4—Connecticut Pomological Society, 65th annual meeting, Connecticut Light and Power Bldg., Berlin.—Howard A. Rollins, Acting Sec'y, 17 Willowbrook Rd., Storrs.

Dec. 3-4—North Central Weed Control Conference, Netherland Hilton Hotel, Cincinnati, Ohio.—C. J. Willard, Co-chairman, Local Arrangements Committee, NCWCC, H & F Bldg., Ohio State University, Columbus 10.

Dec. 4-5—Idaho State Horticultural Society 64th annual meeting, Hotel Boise, Boise, Idaho.—Anton S. Horn, Sec'y, Boise.

Dec. 4-5—Western Washington Research Extension Conference on Horticulture, Western Washington Experiment Station, Puyallup.

Dec. 8-9—Kentucky State Horticultural Society annual meeting, Brown Hotel, Louisville.—W. W. Magill, Sec'y, Lexington.

Dec. 8-10—Washington State Horticultural Association annual meeting, Yakima.—John C. Snyder, Sec'y, Pullman.

Dec. 8-11—Vegetable Growers Association of America Golden Anniversary Celebration, Cleveland, Ohio.—Joe Shelly, Sec'y, 528 Mills Bldg., 17th St. and Pennsylvania Ave., N.W., Washington 6, D.C.

Dec. 9-10—Oklahoma Pecan Growers Association annual meet and nut show, Bristow.—E. L. Whitehead, Sec'y-Treas., Stillwater.

Dec. 9-10—Pennsylvania Horticultural Society, Capital Grange Hall, Dover.—Robert F. Stevens, Sec'y, Newark, Del.

Dec. 11-13—Tennessee State Horticultural Society 53rd annual meeting, New Southern Hotel, Jackson.—A. N. Pratt, Sec'y, 419 State Office Bldg., Nashville 3.

Jan. 5-7, 1959—Missouri State Horticultural Society centennial meeting, in joint session with American Pomological Society, Columbia.—W. R. Martin, Jr., Sec'y.

Jan. 6-7—North Carolina State Apple Growers Association annual convention, Battery Park Hotel, Asheville.—E. R. Phillips, Sec'y, Bakersville.

Jan. 7-9—Northeastern Weed Control Conference, 18th annual meeting, Hotel New Yorker, New York City.—E. R. Marshall, Public Relations Committee Chairman, Union Carbide Research Farm, Clayton, N. C.

Jan. 12-13—Ohio Pesticide Institute, annual winter meeting, Neil House, Columbus.—J. D. Wilson, Sec'y, Wooster.

Jan. 15-16—New Mexico A&M College annual Fruit and Vegetable Short Course, State College.—W. J. Wiltham, Ext. Hort., State College.

Jan. 26-31—New Jersey Farmers Week, Trenton.

Jan. 30—New Jersey State Horticultural Society, meeting, Trenton.

STINK BUGS

(Continued from page 12)

latter should be used only for spraying the ground cover. These materials are normally recommended at the following dosages in 100 gallons of water: dieldrin, 1/2 to 1 pound of 50% wettable powder; parathion, 2 pounds of 15% wettable powder, and lindane at 1 pound of 25% wettable powder. On peaches four to five applications of dieldrin (1/2 pound) or parathion made at 10-day intervals, beginning at petal-fall, are usually recommended. This schedule is also applicable to pears in the East and Midwest. The consperse stink bug may be controlled by ground sprays of lindane, dieldrin (1 pound) or parathion as the insect goes into or emerges from hibernation.—Roy W. Rings, Ohio Agricultural Experiment Station.

FRUIT AREAS

(Continued from page 11)

Horticultural Society, founded in 1885. This growers' organization has a membership of over 1000 and promotes an active educational program with all fruit and vegetable crops. C. O. Rawlings, Oregon State College extension horticulturist, is secretary. Orville Hamilton, of Central Point, is president of the Society for 1958.

Cherries, Prunes, Peaches. Oregon ranks third nationally in sweet cherry and fifth in sour cherry production; second in prunes; ninth in peaches.

Cherry production centers in the Willamette Valley, Wasco, Hood River, and Union counties. Cherries are shipped fresh, canned, and brined. Bing and Lambert are the favorite black varieties. The Royal Ann or Napoleon is grown most extensively and is used for canning and also for brining for the marshino trade.

The USDA 1955 crop summary placed a farm value of \$5,363,000 on 31,000 tons of sweet cherries; \$483,000 on 3800 tons of sour cherries; \$1,562,000 on 568,000 bushels of peaches; and \$3,750,000 on 53,700 tons of prunes.

Prune production, chiefly the Italian variety, centers in the Willamette Valley and Douglas County. The fruits are dried, canned, sold fresh, and frozen. Another area of prominent production is in Umatilla County, in the Milton-Freewater area.

Nearly 30 processors of Northwest Italian prunes have formed the Purple Plum Association to promote nationally this fruit, which is as delicious as fresh.

Production of peaches centers in Wasco, Jackson, and Douglas counties and in the Willamette Valley. J. H. Hale and Early Elberta are the favorite varieties for the late-season crop. Nearly all of Oregon's peaches are commercially canned or used for home consumption or local markets.

Berries. Oregon is particularly noted for the high quality of fruit produced by berry growers. Strawberries are the leading berry crop with a production of over 55 million pounds on 14,000 acres. Important varieties are Marshall and Northwest.

Other berry crops widely grown are blackberries, 11 million pounds; raspberries, 11 million pounds; Boysenberries, 6 million pounds; Loganberries, over 2 million pounds; Youngberries, 109,000 pounds. Oregon produces most of the gooseberries grown in the U. S.

Over 93% of the strawberry and canberry production is sold to processing plants, mostly to freezers. The balance goes to the fresh market, chiefly in Oregon. In 1955 over 116 million pounds of berries were processed in this state with a total value to growers of over \$17.8 million. Blueberry production in Oregon is small but growing rapidly. Only a relatively few grapes are produced commercially.

The main strawberry counties are Washington, Marion, Clackamas, Multnomah, Columbia, Yamhill, Hood River, Polk, and Linn. The state average yield in 1955 was 135 24-quart crates from 18,200 acres.

Cranberry bogs are in Coos, Clatsop, Curry, and Tillamook counties, in order of importance. In Coos County about 200 growers have over 400 acres, which produce about 30,000 barrels. Oregon's yield was second high in the five commercial states.

A vigorous plant certification program directed by Oregon Extension Service and grade inspection at shipment time by the State Department of Agriculture have provided a means of assuring growers of high quality, disease-free plants.

Walnuts and Filberts. Oregon has a \$6 million walnut and filbert industry, with production centering in the Willamette Valley and in Douglas County in southern Oregon. Oregon and Washington grow all of the nation's commercial filberts (Oregon produces over 90%). California and Oregon grow most of the U. S. English-type walnuts, with Oregon producing about 10% of the crop.

The Oregon harvest in recent years has exceeded 15 million pounds of walnuts and 14 million pounds of filberts. The leading variety of walnut is Franquette and the principal varieties of filberts are Barcelona and Duchilly.

A growers' association, the Nut Growers Society of Oregon and Washington, help growers lower production costs through increased yields by means of education, field tours, and annual grower meetings. The Oregon Filbert Commission also promotes the industry through research with funds from a self-help tax.

Most of the Oregon nut crop is shipped to outside markets either in-shell or cracked under federal-state inspection. USDA records show 384 carloads of filberts and 108 carloads of walnuts were inspected and shipped in 1955-56. THE END.

Order books on fruit growing and allied subjects NOW. See page 20 for Special Christmas Book Offer.

Citrus

Outlook for Florida

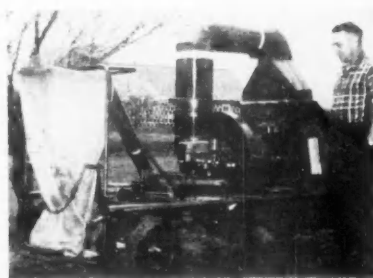
THE effect of last winter's freeze damage on Florida citrus production will be felt for a long time.

That's the conclusion reached by Dr. A. F. Camp, former director of Florida Citrus Experiment Station at Lake Alfred, following a recent survey of the cold damage. "We had planted a lot of cold areas to citrus that never should have been planted," reports Dr. Camp.

The survey of major producing areas, especially the central and northern part of the citrus zone, revealed that the general freeze pattern has changed little over the past 30 years. Sites that were cold in the freezes of 1927, 1934, and 1940 were also cold last winter, points out Dr. Camp. Younger trees were hardest hit because of their susceptibility to cold damage and also because large areas were planted in recent years in relatively colder locations.

Encouraged by warm winters since 1940, growers extended old groves on the top of hills down the slopes. However, last winter pushed weather conditions back to where they used to be, Dr. Camp continues. Often the land next to old trees since 1945 had been planted before and the trees frozen out.

Large acreages of one-, two-, and three-year-old trees were killed to the trunk or to the ground, and a great number of trees in the 3- to 12-year group were killed to a harrack. A high percentage of Florida's recent production came from these trees, and future prospects for really spectacular production were based on these trees, says Dr. Camp.



PECAN HARVESTER

One-man self-propelled pecan harvester invented by Elton Tubbs, president of El-Flo Machinery Corp., Westfield, N.Y., is 10 feet long and less than 5 feet high. Machine turns in its own length. A 5 hp motor operates the 40-inch vacuum pick-up system and a 3 hp motor drives the machine. Mass production would place estimated cost of the picker at \$2000.—Alan J. Ramm.

NOVEMBER, 1958

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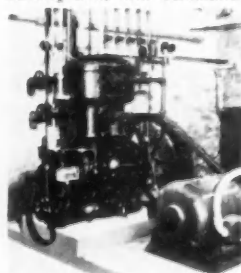
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Butler Bros., Winchester, Va. recently converted a basement area, in one of the farm buildings, to a cold storage warehouse for apples.

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NEW FOR YOU



Leveling Rake

Michigan growers are using a new leveling rake in their orchards which they report is ideal for peach plantings and new orchard leveling. The equipment consists of three separate tools in one. A 7-foot harrowing section is equipped with nine double spring tines, followed by a grader section and a grader blade. It's an ideal tool for the orchardist and you can get full details by writing Lift Tools, Inc., Eau Claire, Mich.

The Orchard Floor

A new three-gang mower that really cuts any type of orchard grass is ideal, quick, and efficient in maintaining your orchard floor. We have used the unit in our experimental orchard and it does a perfect job. On a fairly flat site it makes the orchard look like a park. And the thing we like about the equipment is that it is easy to cut close to the trees, and the three-point hitch makes the unit highly flexible. If you will write the Worthington Mower Co., Stroudsburg, Pa., they will send you all of the facts.

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About two years ago several growers decided that a fork lift was necessary to decrease harvesting and packing costs in their orchards. These growers asked a well-known company to design a fork lift unit which would fit most of today's conventional tractors and could be dismounted quickly to make the tractor available for other orchard needs. After a great deal of testing in the orchards, such a machine was developed. The unit will lift 2500 pounds to 52 inches. Other models are available to lift greater weights, depending on your requirements. This is a sure way to reduce your costs. Write Howard H. Stephens at Henry Manufacturing Co., Inc., Box 521, Topeka, Kan., for Bul. OL-1P.



Irrigation Guide

The mystery of friction loss in main or lateral sprinkler lines and sprinkler precipitation rate have long bothered growers who want to get the maximum efficiency from their irrigation system. These problems can be easily solved, as John Muller points out in the picture above. If you would like a Performance Guide, see your Buckner dealer or write John Muller, Buckner Mfg. Co., 1615 Blackstone St., Fresno 8, Calif.

NOVEMBER, 1958



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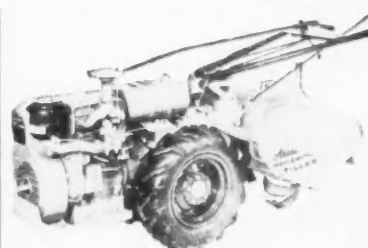
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AMERICAN FRUIT GROWER
WILLOUGHBY, OHIO

FORMULA FOR SUCCESS

(Continued from page 9)

experience has been that almost every time you try to save by cutting costs, you pay for it with lower quality and less net returns.

On one block last year he tried Systox and got good control; it seemed that the leaves on these trees sized up more rapidly.

Clint is of the opinion that the use of captan (Orthocide, Stauffer Captan 50-W) the past five years is the big reason for better yields, color, and finish. Sulfur, he believes, was cutting yields more than we appreciated, and he does not expect to use it unless mildew becomes more of a problem than it has been.

The Carloughs are sold on the fact that apple trees must show rapid leaf and shoot growth early in spring in order to "stick" a good crop. Clint tries to get his fertilizer on as early as possible, usually in November. He uses an 8-8-8 and applies it in a ring under the tree by hand.

He fertilizes each tree individually. One experienced man will fill the buckets according to the tree's needs. If the tree is in relatively low vigor or has mouse injury, more fertilizer is applied. Trees near the top of hills get more fertilizer than trees at the base or in low areas. He also considers the size of the crop the year before and the character of the buds this year.

The Carloughs were among the first in New Jersey to use deep tillage to invigorate old blocks. A few years back Clint was intending to pull one block of trees due to low vigor and irregular production. As an experiment he used a claw-type deep tiller, stirring the soil to a depth of 8 to 10 inches in a swath 8 feet wide.

The tool was pulled within a foot or so of the trunks. It tore off some roots but generally strung them out, with some bruising. This practice shocked an observer as well as the trees but after a month or two growth started again. The trees also were given moderately heavy pruning to compensate for loss of roots.

This practice on old trees under his soil conditions results in high quality fruit and heavy yields for the next three or four years. He has since been deep cultivating all mature blocks by rotation every three or four years.

In the fall where his leaves show a magnesium shortage, this deep tillage usually corrects it the next year. Also, he believes his deep-tilled soils are able to absorb and store more moisture in winter for use during the growing season.

In training trees, Clint believes in the pyramid shape tree which has a

This article by Dr. Norman F. Childers contains the highlights of a talk given by Clint Carlough before pomology students in the Department of Horticulture, Rutgers University, New Brunswick, N.J. Dr. Childers is chairman of the department. Clint's practical ideas will be of interest to fruit growers throughout the country. —Ed.

central leader. With regular bearing and some pruning he has been able to maintain tree height so that no more than a 20-foot ladder is needed to harvest. With this training system, relatively little breakage of limbs has resulted.

Pneumatic pruning with platforms has been used for several years. With platform pruning he is getting a much better job of pruning in the area where it is needed most—in the tops and on the sides. On older McIntosh he is doing a lot of snipping back of the terminals to keep the trees from spreading too widely. He generally cuts back to an upward growing limb or a fruit bud.

Mice have always been a problem. He has used a lot of zinc phosphide apple cubes, but there always were enough mice getting by to kill mature trees here and there. Endrin has done a thorough job and he has been able to cover his acreage at a cost of materials of about 25 cents a tree.

Deer also have been a problem, particularly on young trees. A friend told him to try pouring a strip of unrefined highly-odoriferous-type creosote around the blocks, repeating every three weeks. It took about 6 gallons for a 45-acre block. This seems to have controlled deer damage.

For sales outlets Clint likes particularly the Army and Navy because they have been ordering from one to four carloads at a time and he has the entire lot inspected at one time by federal inspectors who go by U.S. standard grades.

Carlough packs in western boxes which the Army and Navy like. There are perhaps only about 15 growers in New Jersey who are packing in western boxes, only two in New York, and perhaps one or two in the New England states. So this reduces competitive bidding.

Clint Carlough has seven farms located up to 7 miles away from headquarters. He uses his own trucks to carry apples within the local area of Philadelphia. He does not own large trailer trucks. It is more economical under his conditions to hire trailers when he has sales as far west as Wisconsin or as far south as Florida and New Orleans.

Clint firmly believes that a manager must be in his orchard most of the time during the growing and harvesting season, in order to keep ahead of mites, apple maggot, scab, and other pests and problems. THE END.

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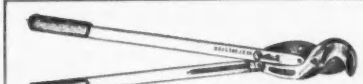
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The Bottleneck

MORE and more attention is being given to breaking the bottleneck of hand labor that goes with harvest.

The binder, the thresher, and the combine took care of the cereals. The corn picker has taken care of corn. The cotton picker handles cotton. But when it comes to fruits and vegetables, the story is more difficult.

Nevertheless, much progress has been made. Fresh peas are harvested, plant and all, and run through a viner that shucks out the peas. Snap beans are being picked by machine. Walnuts and prunes are shaken and gathered mechanically.

More recently, the vision in tomato research has been directed toward breeding a small, erect plant

which carries only a few fruits that are shaken mechanically onto a moving belt.

Again, some success has been achieved in harvesting both sweet and sour cherries by shaking the fruit onto canvas from small trees. Blueberries are similarly treated.

Progress depends mostly on vivid imagination and persistence. There is no use approaching the harvest problem with any of the old ideas of hand-picked fruit. The bottleneck will eventually be broken. There is no alternative if we are to stay in business.

And so, laugh at nobody. Encourage every crazy idea that comes along. Somebody will come up with the answer.

The Big Change

SPEAKING before International Apple Association a few years ago, Irving A. Duffy, of Ford Motor Company, said: "Are we thinking big enough? . . . All who are concerned with the distribution of products must be especially alert and imaginative. We have had our production revolution; we are now in the throes of a distribution revolution."

This is one of the interesting changes in the world during this generation. Many individuals fail to recognize it. Just as we went through the stages of screening varieties for commercial production, standardizing certain varieties, developing specialized production areas throughout the country, and more or less standardizing production practices, so today we are wrestling with organization and distribution, and services in general.

There will always be changes and improvements in varieties, opening of new areas of opportunity and closing of old ones, improvement in production techniques. But the big challenge is in the newer fields of packaging, handling, utilization, merchandizing, advertising, and all those factors covered by the term "distribution" that Duffy mentions.

How important this new thinking has become is shown by the fact that

slightly less than half of all workers in America today are concerned with production—and this includes all industry, not just the fruit. The others (slightly more than half) are dealing with various services—transportation, insurance, sales, advertising, amusements, and so on.

It seems scarcely credible that we have moved so far in this direction.

But this is the big change in modern society, and a person should now and then stop and reflect and see if he is changing with the times or is still fighting for the *status quo*.

Fruit Growing is Such Fun!



Fruit Talk

Says Edwin Mawby of Michigan, "If each adult in the United States would eat an apple a day, it would take 438 million bushels of apples to satisfy the demand."

The prepackaging of fresh fruits and vegetables in the United Kingdom has increased from 100,000 prepacks sold annually (average weight of 1 pound) to 200 million in four years. An international exhibition of prepackaging was staged in London in October, to further the trend.

R. S. Fitzsimmonds, reporting on The Deciduous Fruit Industry of Argentina, says that Argentina exports of apples and pears are growing substantially and that competition may be felt in the years ahead for the European market and for the American market in late spring and summer.

Total controlled atmosphere space in Michigan is jumping from 135,000 bushels in 1957 to between 500,000 to 600,000 bushels in 1958—mostly McIntosh and Jonathan.

Favorable results have been secured in the rooting of blueberry cuttings by using frames covered with clear plastic reinforced with fine wire mesh, in place of the conventional, more expensive, heavier glass frames.

The New Zealand Fruit Growers' Federation has worked out a plan whereby two or three young fruit growers are sent to Australia and housed there for a year in exchange for three young fruit growers from Australia similarly housed in New Zealand.

A writer from Worcestershire (England) comments on bullfinches as being able to account for a loss of plum tonnage through feeding at the rate of 30 cherries a minute.

It is a disappointment that so few people really know fruit at its best. A pear which is not properly ripened is a snare and a delusion, but one which is prime is a delight. Have you tried chilled, sliced, fresh Sheldon pears with cream for breakfast?

The accounts of recent typhoons in Japan show clearly why branches of fruit trees in that country are tied strongly to heavy, sturdy wire supports—an expensive and tedious operation. Every section has its hazards.

Russian research workers report the vitamin C content of apples in Russia as ranging from 2.5 to 79.6 milligrams per 100 grams of fresh weight—which allows plenty leeway for plant breeders to develop varieties of apples with higher vitamin C content than tomatoes and oranges.

For your library: Freezing Points of Fruits, Vegetables, and Florist Stocks by T. E. Whiteman, Marketing Research Report No. 196, available from Agricultural Marketing Service, USDA, Washington, D.C.

—H.B.T.

Coming Next Month

- Growing a Fruit Grower in Tennessee
- A Review of the Fundamentals of Pruning
- Missouri Hort Society's 100th Anniversary
- Growing Pears in New Hampshire
- Aerial Mower for Pruning Peaches



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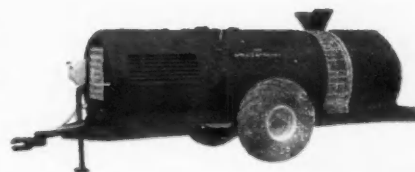
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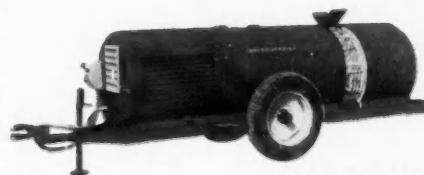
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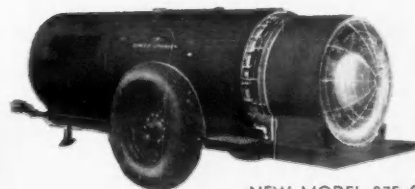
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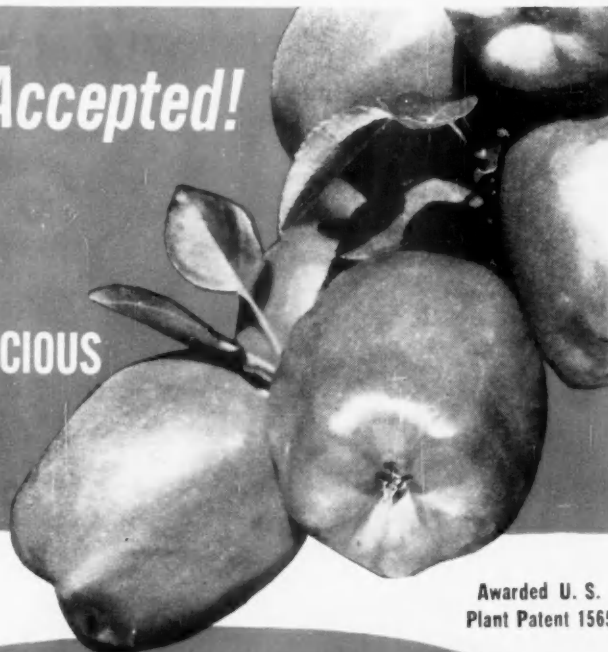
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